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ABSTRACT

Eighteen award winning, teacher-developed programs, projects, courses, and materials in economic education are presented in condensed versions. The case study projects are designed to be used in primary, intermediate, junior high, senior high, and college, and are organized into five chapters by grade level. Chapter I suggests ways to teach economic concepts in grades K-3 through activities using a minisociety simulation, a classroom corporation, discussion of economic roles throughout history, and building a house. Chapter II, for grades 4-6, focuses on neighborhood economics, comparison of interdependence in bees' systems with that of humans, the role of transportation in society, and the economics of running a school. Chapter III offers projects on the relationship of economic and political decisions through use of a simulation, a work experience painting classrooms, a study of market economy, and career education for junior high school students. Chapter IV, for high school, teaches practical economics to low-income students, some of them slow learners; economic concepts within a western civilization context; and consumer education. The concluding chapter, for college students, focuses on economic concepts and issues analysis through studies of the market system. An appendix at the end of each chapter provides brief overviews of additional courses and programs in economic education. For each case study, information is presented on grade level, project background, time allotment, objectives, activities, and evaluation. (CK)

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ECONOMIC EDUCATION EXPERIENCES OF ENTERPRISING TEACHERS

Edited by Andrew T. Nappi and Anthony F. Suglia

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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**A report developed by the
Joint Council on Economic Education
From the 1977–78 entries in
The International Paper Company Foundation
Awards Program for the Teaching of Economics**

VOLUME 16

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Foreword

It has been said that if one waits long enough the pendulum reflecting prevailing thought will touch all ranges along the spectrum of educational philosophy. Today, such expressions as "Competency-based Education," "Back to Basics," and "Accountability" are prevalent as echoed by many people in contemporary society. An appropriate question that might be asked is "In what ways, or to what degree, if at all, does economic education fit into prevailing attitudes in American education?"

We are pleased that Volume 16 of *Economic Education Experiences of Enterprising Teachers* reflects the continuation of a concept and a program. As one reads through the annual publication, there will be considerable evidence that the outstanding teachers who have received recognition through the National Awards Program for the Teaching of Economics have not lost sight of the basics and the need for proven competencies that must be taught in our schools. Indeed, the reader will find many examples of how teachers buttressed the basics through the infusion of economic concepts, principles, understandings, and terminology as vital components of the on-going curricula. Vocabulary skills, reading mastery, and arithmetic calculations are but a few of the many examples cited in the publication which are enhanced through the utilization of basic economics.

Innovative teachers characteristically distinguish themselves in their ability to sense and grasp opportunities to vitalize classroom experiences. They are in touch with the times and are eager to add dimensions to their teaching that will encourage student understanding and involvement in matters of personal and societal concern. Readers of Volume 16 will find these features apparent in the way economics teaching has been related to many disciplines in addition to career education, consumer education, and the environment. We can expect that next year's entries will include Proposition 13, the energy crisis, and wage and price guidelines, among many other contemporary issues, as effective teachers continue to integrate economics into their programs of study.

The sixteenth year of the National Awards Program for the Teaching of Economics brings both bad news and good news. The bad news is that George G. Dawson, who served as editor of *Economic Education Experiences of Enterprising Teachers* for the past thirteen years, has decided that other demands upon his professional life, especially in economic education research and writing as well as university administrative responsibilities, prohibit his continuation as editor of this publication. Dr. Dawson's tireless efforts, seemingly boundless energy, and deep love and belief in economic education, have in good part been instrumental in the success of the National Awards Program. The good news is that Andrew T. Nappi, director of research development, and community service and former director of the

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Center for Economic Education at St. Cloud State University—and a several times National Awards winner—has agreed to serve as editor, thereby insuring a continuation of the high standards set by Dr. Dawson for this annual publication.

The Joint Council offers its appreciation and commendation to the panel of judges for their conscientious and dedicated efforts: George L. Dawson, professor of economics and director of the Center for Business and Economic Education, Empire State College of the State University of New York; Myron L. Joseph, professor of economics, Graduate School of Industrial Management, Carnegie-Mellon University; Laurence E. Leamer, director of the Center for Economic Education and Public Policy, State University of New York at Binghamton; Delmas F. Miller, visiting professor of education, West Virginia University; Edward C. Prehn, social studies consultant and economic education editor, New York City Council on Economic Education; Rodney Tillman, professor and dean, School of Education, George Washington University; Henry Villard, professor emeritus and former chairman, Economics Department, The City University of New York; Dorothy Cowles Wass, elementary education consultant, Storrs, Connecticut. Perhaps their attention will make up for the fact that this volume was not reviewed by the Publications Committee of the Joint Council, as is customary for the JCEE.

We also acknowledge with sincere thanks the cooperation of the teachers whose ideas appear in this publication. They have been most understanding in granting us permission to use their material and agreeing to our many editorial revisions. We also extend our gratitude to Michael A. MacDowell, president of the Joint Council on Economic Education, for his counsel and assistance in making this publication a reality. Finally, the Joint Council offers its appreciation and extends its gratitude for the commitment to economic education and the support of the National Awards Program by the International Paper Company Foundation through its vice president and director of education programs, Sandra L. Kuntz. We also extend our compliments to Sharon Scott and John DeVita of the Joint Council staff for their many efforts in carrying out all phases of the National Awards Program, and to Andrew T. Nappi for his editorial work in publishing Volume 16 of this annual publication.

Anthony F. Suglia
Director, Affiliated Councils Program
Coordinator, National Awards Program
for the Teaching of Economics

Editor's Introduction

I must confess I found the task of editing this volume to be extremely difficult. It was not easy for me to follow in the footsteps of my predecessor, George Dawson. Dr. Dawson demonstrated a unique ability to summarize the award-winning entries in such a way so as to capture the essence of the teaching experiences and practices that receive recognition in this annual program. He was truly a master at pinpointing the key economic ideas and procedures developed in the projects and highlighting the creative and imaginative approaches used by teachers to stimulate the advancement of economic education.

Over the years, the Awards Program has done much to encourage, acknowledge, and reward the outstanding teaching practices of elementary and secondary economics teachers. The quality of this year's award-winning projects, too, is gratifyingly high. It is hoped that the example of the teacher efforts published here will encourage other teachers, not presently involved in the economic education movement, to formalize and submit descriptions of their classroom experiences. In this way, the Awards Program will have helped to stimulate continuous improvements in economic education teaching-learning practices.

As I reviewed the award-winning entries in this year's competition I was impressed with the variety of teaching methods and learning activities employed to communicate economic concepts and understandings. I am sure that teachers who are contemplating submitting an entry to the Awards Program, and those who have submitted projects but failed to win, will gain from a generalized description of winning entries. It must be noted that the reports published in this book are condensed versions of the original projects and that some of the material teachers submit cannot be presented or even summarized easily. The characteristics of a prize-winner are as follows:

1. *The project contains a succinct statement of the goals or learning objectives.* It is important to state the specific cognitive and affective outcomes that the teaching experience is directed toward. It is not necessary to prepare a long list of objectives. Rather, the objectives should be clearly articulated and related to the instructional program. How can a reader judge a project unless the important economic facts, skills, and generalizations are defined?

2. *The learning experience is related to economic understanding.* The judges want to know how each unit, lesson, method, or activity included in the project will help to develop economic concepts and generalizations. That does not mean that math, writing, reading, or other communication skills are not important, but simply that awards must go to those who focus on the teaching and learning of economics.

3. *A well-organized and clear description of the steps, procedures, and sequence of activities is presented.* In this section of the report, the

emphasis should be on the materials, the time schedule, initiation procedures, assignments given, activities or strategies used, and culminating experiences. The length of time required to teach the materials should be stated. Motivational techniques must be spelled out and instructional activities described in detail. How did the teacher get the pupils interested in the ideas to be taught? How was the lesson, unit, course, or subject initiated? The reader should be told at the very beginning whether the project describes a year-long or a semester-long course, a five-week unit, a special study lasting two weeks, a single lesson, or whatever. If it is less than a full course, the author should show how the project fitted into the course or curriculum being taught and how it was related to material that preceded or followed it.

4. *The instructional environment and class situation are clearly described in the winning entries.* The judges want to know what ages, ability levels, or special characteristics apply. If the project was developed for a particular socioeconomic or ethnic group, the judges need to be informed.

5. *A step-by-step account of teaching techniques is given.* It must be remembered that the basic purpose of the Awards Program is to help other teachers. These projects can serve others only if the author gives the details of the methods employed. It is not enough simply to say that a resource speaker was used—the reader should be given to understand exactly how the speaker presented economic ideas, what follow-up activities were conducted, how this activity fitted into the total project, how it was evaluated, and so on. Where appropriate, sample lesson plans should be included, along with such items as assignment sheets, instruction sheets that might have been prepared for the students, and the like. A complete description of the human and material resources used should be included in the report.

6. *The project shows originality.* It should be more than a rehash of someone else's work. At the least it should give an entirely new "twist" to an idea developed in a previous year. Ideas that captured awards in years past tend to become "old hat." This does not mean that they are not good, but simply that the awards must go to those who develop fresh approaches to teaching economics.

7. *Photographs or samples of student work are included.* Photographs of bulletin board arrangements, table displays, murals, and other items that cannot be shipped are welcome. It is not necessary to submit large posters or bulky objects if a photograph will suffice. Neither is it necessary to send in everything the students have done. A few examples—one or two typical term papers, for instance—will do.

8. *The culmination of the unit project is explained.* Good teaching units have three basic parts: (1) initiatory and motivational activities, (2) developmental activities, and (3) culminating activities. The first helps to get the pupils interested in the unit, project, or lesson; the second develops the ideas, concepts, skills, understanding and attitudes listed in the goals; and the third brings the experience to a close by summarizing and applying what was taught. Plays, assembly programs, displays, field trips, the making of

films or filmstrips, simulations, and many other activities can be used as the culmination of a unit.

9. *Evaluation techniques are always given.* These generally include tests of all types (short-answer, essay, and performance examinations), but can also include less formal activities, such as self-evaluations by individuals, groups, or the class; written or oral evaluations by outsiders; and observations of pupil behavior. Samples of testing instruments should be submitted with the reports, along with the results.

10. Finally, *attention to the requirements* set forth in the Awards Program application form, an orderly arrangement of the material, and simple neatness are appreciated.

The educator whose submission has all ten characteristics outlined above will have a good chance of winning. It should be noted, however, that the competition is keen, and that each year it becomes more difficult to win than in the year before. Prospective entrants would be well advised to seek the comments and criticisms of others before submitting their projects. In particular, the teacher whose formal preparation in economics is minimal should consult an economist regarding the accuracy and appropriateness of the economics contained in the report. Many projects that represent an enormous expenditure of time and effort, and that contain superb ideas and materials for teaching, fail to capture an award simply because they contain little or no economics or because the economic content is inaccurate.

The editor hopes that this brief summary of what constitutes a good project will be useful to educators. He deeply appreciates the work of those teachers (nonwinners as well as winners) who are contributing so much to the elimination of economic ignorance in our society. It is hoped that more and more teachers will enter the Awards Program in the future, sharing their knowledge and experience with others for the good that this can do as well as for the possibility of financial rewards.

The editor acknowledges with sincere thanks the cooperation of the teachers whose ideas appear in this volume. They have been most patient and understanding in permitting us to use their material and in agreeing to our many editorial revisions.

Andrew T. Nappi
St. Cloud State University

TO OUR READERS

The reports published in this book are condensed versions of the original projects. In fact, some of the materials teachers submitted cannot be presented in print form or even summarized easily. The complete reports can be obtained from the Vernon R. Alden Library, Ohio University, Athens, Ohio 45701.

CHAPTER ONE

Kid Town: A Primary Economy

An Economics Unit for Third-Graders

Nancy L. Naumann
Montowese Elementary School, North Haven, Connecticut

Introduction

This project was founded in the belief that the main purpose of education, particularly in the elementary grades, is to teach children to think. Therefore, program goals dealing with economics were developed to help students progress logically from very concrete to quite abstract levels of thinking, in both cognitive and affective areas. "Kid Town" is not social studies or math or language. It integrates all subjects in a meaningful way that promotes students' individual as well as interpersonal growth. Children learn by doing.

We begin with a few basic economic ideas and gradually supplement these until we have established an entire community. The central thrust of our efforts is the operation of our town—complete with economic, cultural, and political components. Youngsters spend about three 45-minute periods a week engaged in their respective career roles, seeking their fortunes in our kid-sized world. The other blocks of time are devoted to group discussions of concepts related to economics, which in turn add new examples of community life. Language, reading, math, spelling, music, science, and art experiences are coordinated with economics as much as possible and spread throughout the school day. The program is not textbook oriented. It is based upon discussion, teacher-prepared activities, and enrichment activities culled from a variety of resource materials. We do use a couple of social studies texts as references because the topics in a few of the chapters are appropriate to our needs. Any text or trade book with pertinent information would serve the same purpose.

To be truly effective this project must be developed through creative teaching. I decided to initiate the study through students' strengths and needs and to maintain enough flexibility to move ahead with the interests of the class. We have a "Kid Town" each year in my third grade—all alike in general format, but incredibly different in their specific characteristics, as different as the personalities that comprise each group of students. This particular unit encompassed nine weeks, but the length varies somewhat from term to term, although the project is usually conducted during the final two months of school. We save the best till last—when the class has achieved enough cohesiveness and basic skills to allow the program to operate effectively.

Learning Activities

At one point I regarded the idea of building a simulated community as unique in the field of primary education. It is not, but that hardly affected the children's fascination and involvement with our town. It was to stave off the middle-of-March blahs that I decided to look for something besides a pencil-and-paper approach to learning about money. I scribbled ideas into my plan book to share with the children. I began a fairly intense discussion of why people work, but enthusiasm is contagious and eventually most eyes were open and hands up. Everyone knew that money has something to do with why people work, but it took us a little longer to sort out just what people spend money for. We established three categories: needs (food, shelter, transportation, medical care); privileges (hot fudge sundaes, an afternoon at the movies); penalties (a ticket for speeding, a fine for littering). We then discussed how people earn money: the production of goods and services. When we had listed a sufficient number of examples for each category, I suggested we translate these social activities into classroom-related ones. For convenience, we drew up a single list of classroom activities the children would either pay for (penalties and privileges) or be paid for (services). Even before the fees were determined, our list revealed an outline of classroom values, which became more telling as the children attached a price tag to each item.

Now I told them I would give each pupil ten dollars of play money a week. They could use it any way they wanted for the things on our list. They quickly discovered that depending on how they behaved, how many treats they wanted, and how hard they worked in the room, they might have more money at the end of the week or none at all. There were still some looks of confusion but the game element won unanimous approval. We then turned the room into a money factory, tracing real coins onto cardboard and designing dollar bills on ditto masters. One of the coin workers observed, "You know, if we're going to have all this money, we ought to have a bank to keep it in." Someone added from across the room, "and wallets." Why not? I found some small business envelopes, which, when adorned with a crayoned monogram, served for holding several bills and coins. We decided to transform our puppet theater into a bank, complete with counter and window. We decided that the job of bank teller would pay 75 cents a day, that the banker should stay in the bank at all times (even while doing class work), and that everyone would have a turn as banker.

When we officially started the project, everyone received a spanking new ten-dollar bill, and immediately there was a run on the bank. Not only did this frustrate the teller but mild anarchy broke out in the room. Children walked around aimlessly and before long I had imposed three modifications of the project: (1) no one could miss more than one period of math or reading per week; (2) an alternative activity (privilege) would have to be chosen (and paid for) when skipping the regular activity; and (3) no more than two people could opt to miss the same activity. Money changed hands very rapidly the first week. The ambitious were hauling in nickels, dimes, and quarters as fast as they could wash the sink or clean the boards; the thrifty stashed away their cash for a rainy day; and the others enjoyed spending without much thought of the future. While I did not much enjoy keeping track of who was talking out of turn or who was not paying attention or who was teasing whom, and collecting the designated fees, I could not help noticing how everyone's behavior was improving.

The children who were content to swap their money for the privileges on our list stayed highly interested in the project, but the savers needed to see a greater purpose than just collecting a wallet full of bills. One of them, after about two weeks, came in lugging a bag stuffed with old toys and books. "My mother," she exclaimed, "said we don't need these any more and we should auction them off! What's an auction?" Other youngsters followed suit, and soon we were ready for our first auction. Auctions quickly became a weekly event and the most eagerly awaited of our activities. All items were displayed beforehand, so that the children could evaluate the merchandise and choose what they wanted. Half-used coloring books brought in as much as six or seven dollars, which really bolstered our banking funds. Stuffed animals, even the well-loved, grungy sort, were big sellers. One of the children who contributed a sizable bundle of goods thought it was unfair not to receive some money in return. The class decided that 50 percent of the price of each item sold would go to the contributor. This provided a good introduction to fractions and also encouraged more children to bring items in for the auction.

At ten-dollar salaries per week, a good deal of money entered the economy. For several bursting wallets, bank accounts were opened. We all made bank books with columns for "deposit," "withdrawal," and "balance," and we learned the meaning of "interest," which was compounded weekly at 5 percent. Before this the bank had been simply a treasury for receiving or paying out fees and fines. Now it was really a bank. We also got involved in a lottery. Our infant economy was fast growing into a way of life. From our narrow study of money was emerging a small community, in which differing values and varying lifestyles were coming into play, much as in the real world. We decided to name our community. Several possibilities were suggested, but "Kid Town" won by popular acclaim. We then agreed to list the things we had developed thus far as a way of seeing where we had been and possibly understanding where we were going. We wrote on the board: money, the bank, the auction, the lottery. Then we asked, "What real goods and services do people need money for?" The list included food, shelter, clothing, medical care, and utilities. We then named the services provided for a community rather than for individuals alone: mail delivery, police, fire fighters, garbage collectors, street cleaners, a mayor. That these services were supported by tax dollars clarified a few issues that had received much attention locally—teachers' salaries in particular.

Next we assigned an arbitrary value to each service, hoping the figures would be commensurate with other "Kid Town" prices. When we totaled the cost of all public services and divided by the number of citizens, it worked out to a tax of four dollars a month. Fair enough, I thought, but the children did not want to part with their hard-earned money for such remote purposes. The groans increased when I introduced the notion of bills. Cards were designed indicating repair charges, doctor's fees, and the like. Each child had to draw one card a week and pay the fee to a clerk who noted each payment on a master chart. All this began to complicate life a little, but we had added things gradually enough so that the children were able to understand each new phase of our world-within-a-world.

Kid Town wanted a town crest, as a sign of its identity and unity. It had four sections with a symbol in each: money, depicted by coins; working together, by two smiling faces; learning, by a book and pencil; and jobs, by a factory. We had already decided on important town functions, so now we made a list of jobs not necessarily supported by public funds. The class discussed how the various roles could be adapted to the classroom. We came up with a chart showing a variety of career opportunities including teacher, author, carpenter, toy maker, dancing instructor, newspaper editor, farmer, insurance agent, librarian, and store clerk. Everyone was ready to turn the classroom inside out to create shops and offices. All I had to do was help organize their industrial fervor. This employment boom led us very naturally into a consideration of advertising. "Words That Make Us Buy" was the theme of our next activity, and we pored over old newspapers and magazines to find catch phrases: "Best Buy Ever!" "Pollution Free!" "Giant Economy Size!" and on and on. In making our signs and billboards, we combined a lesson in lettering with composing of the commercial message.

Next came the scavenging for raw materials. Before long, the library was filled with books and the carpenter shop accumulated a useful stock of wood. We also found a resource person to help our local farmers get started productively. Some minor arranging of the room gave everyone enough space to set up shop and let the room look somewhat townlike without its being disrupted for math and reading time.

Now we were ready for business, which also meant eliminating the ten-dollar salary for all but town employees. The others had to sink or swim. Kid Town thereupon entered a phase that is not easy to describe, functioning casually yet with a structure arrived at by the children themselves. The first big question was: "If we're always busy doing our own work, how are we ever going to see other shops or buy things from other people?" I didn't have any answers, but the dilemma resolved itself naturally once we got started.

As in the world outside, some children worked continuously and productively, and concentrated on selling at the best possible price. Others would make something, sell it, then idle for awhile until that money was spent, and begin the cycle all over again. Some children had a difficult time settling into anything constructive on their own initiative. I could not help wondering if these particular patterns of behavior would persist through the children's lives, or whether the clear financial consequences of productivity or lack of it would work to redirect the children's performance.

In any event, some remarkable goods and services came out of Kid Town: Our toy makers recycled cereal boxes to create a freight train; the carpenters designed airplanes, sailboats, and a few nameless products that became useful items when turned upside down; the farmers planted so many green bean seeds that some actually sprouted; and two girls founded a dancing school. One of our brightest ventures was a candy shop, stocked from home, which operated one afternoon a week and caused most other businesses to shut down temporarily. Most of our "business folk" began on a self-employed basis. People were more apt to work side by side on similar projects than to join forces on a single item. Toward the end of the school year; however, a few job shifts and mergers took place. By this time, we were devoting three 45-minute afternoon sessions a week to individual jobs, with an optional 20 minutes each morning. On the other afternoons we discussed ways of developing our community further. One idea involved the purchase or rental of property—specifically, one's desk. This meant a bit more bookkeeping and a decision to either buy a "home" for eight dollars or rent one for 75 cents a week. A robbery at the "Kiddie Card Shop" inspired an interest in law and order that led to a town government. Two candidates for mayor were selected and they campaigned before the election. Besides the traditional promise to lower taxes, they urged "a full day of Kid Town," "an extra fee for staying in the bathroom too long" and "a 20-second drink after gym." As luck would have it, the voting came out a tie—broken (in Curt's favor) by telephoning a child at home with the chicken pox.

By June we tried to limit any further development. Mayor Curt had taken over much of the town organization and had ideas of his own. The mystery of the missing money at the Kiddie Card Shop was never solved, but the detective work that transpired was as impressive as any I had seen on TV. (For a while they even suspected me!) None of us really talked about the closing of school, but about the closing of Kid Town. Our community had become the focus of our school life, the source of our motivation, and the aim of much learning. A minisociety, it shared many of the features of the larger society—features that made for the interest and value of Kid Town.

Evaluation

There is no statistical evidence that this project works—no pencil-paper tests, no recorded scores in a teacher's marking book, none of the traditional A's, B's, and C's to send home to parents. Through this study I am seeking to develop children's cognitive and affective levels of perception in economics. Goals are achieved through direct involvement in a simulated community. And it is in terms of the *quality* of that participation that students are evaluated.

As children engaged in day-to-day Kid Town experiences, I asked myself many of the questions previously designed to measure each objective. Five consecutive classes have now enjoyed creating their own community—testimony that most of those questions have been answered with a hearty yes, making this a unit worth repeating each year.

Youngsters' self-evaluations have also been instrumental in promoting the program. Their accounts of what they have learned, what they have enjoyed, and what they hope to remember confirm and strengthen teacher interpretations regarding the validity of incorporating economics into the curriculum.

The impact of this unit upon student behavior transcends the field of economics. It is a natural exercise in behavior modification complete with contingencies (penalties) and rewards (services and privileges). Children stand to gain or lose depending on their actions and values in the classroom. It fosters a marked improvement in everyone's behavior.

Loyalty to Kid Town extends beyond the period of the study itself. This classroom town has become somewhat of a legend at our school and generates continued interest among third-grade alumni. "Did you start Kid Town yet?" children inquire throughout the year, greeted by blank stares from students not yet introduced to the program. Once the community does open its doors, fourth-, fifth-, and sixth-graders return frequently to check our progress. They offer helpful hints to proprietors and draw comparisons between their economic ventures and those of the current community. "We didn't have a sports arena last year," a fourth-grader lamented recently. "We should have thought of that."

Kid Town lives on in the hearts and minds of its citizens. This collage of experiences is best captured not in words but in the spirit in which it is conducted, with sensitivity toward student growth—both great and small. Laura acquires hundreds of dollars through clever and wise business investments. Joey willingly completes an entire project for the first time all year. And Margie overcomes deep personal insecurities enough to join with a classmate in a career enterprise.

Joey and Margie may not have attained extreme heights in critical thinking through their involvement with economics. But their growth is at least as significant as Laura's and may eventually make a greater difference to their future. Progress is relative in our simulated community; there's something for everyone.

Kid Town seems to combine meaningful education in all academic areas with high-interest activities. It helps children to want to learn and provides them with the tools and skills to make that learning come alive. The goal of all education should be to develop students who actively use their minds to search for and interpret new knowledge. Furthermore, that goal should be the criterion by which any curriculum program is evaluated.

Kids Kountry Kookbook

Economics For Third and Fourth Grades

Cathrine A. Richmond
Newton-Ransom Elementary School, Clarks Summit, Pennsylvania

Introduction

My main goal in teaching this unit was to provide students with a wide range of learning experiences that would be unique in terms of what youngsters typically expect in an elementary classroom. My plan was to incorporate other subjects into this economics project, to offer children a variety of challenges, and to provide them with opportunities to practice decision-making and problem-solving skills.

The following specific objectives were developed in the unit:

- To involve students in production, marketing, advertising, sales, and business operations;
- To establish a classroom corporation, "The Newton-Ransom Kids Korporation," and to operate a business;
- To provide pupils with first-hand experiences in producing a product for sale;
- To demonstrate how a business operates within the framework of the American economic system;
- To involve students in activities designed to develop their critical thinking skills and abilities.

Overview

This project was designed to involve students in a "real" business experience. Learning activities included selecting and developing a product, establishing a corporation, holding elections for officers, borrowing money to go into business, selling stock in the company, marketing the product, and paying taxes. I felt that the first step in this undertaking was to develop individual initiative. The children would be provided with many opportunities to make choices and solve problems both independently and collectively. Working with two grade levels and with students of differing abilities, I hoped to instill an attitude of cooperation among the children. At this point, the main emphasis was on helping the students adapt to new situations and providing them with opportunities to contribute to the total project.

The success of this project was far beyond my expectations. What had actually begun as a spin-off of our classroom newspaper grew like "Topsy," Originally I had planned on preparing a mimeographed cookbook after the children wrote to a small group of people requesting favorite recipes. However, press coverage of our project attracted recipes from a fifty-mile radius, and many people wrote to us asking to purchase the cookbook.

Our project actually began with our school newspaper, *The Three-Fourtonian*. We printed our first issue just before Christmas, and it was distributed to all classrooms in the school. The children also took a copy home to their parents. They loved writing the newspaper and they received some helpful instruction from the editor of our local paper, *The Voice*. During a class discussion, the editor suggested that an important function of a newspaper is to advertise products and services available to consumers. The children were shown how advertisements were designed and prepared for printing. When I originally decided to incorporate a unit on economics into the second semester, I had no actual "product" in mind. I knew what I wanted to accomplish in terms of integrating other subjects into the project but had no definite ideas of what could be accomplished. While I was teaching a unit on nutrition, the idea of a cookbook came to mind. In fact, it was the children themselves who decided a cookbook would be a great product. They were aware of the economics unit I was planning since I had introduced several concepts, including producer, goods, consumer, and business. I also mentioned that our unit of study would explain how many different businesses operated in the economy to produce goods and services for consumers to satisfy their wants.

I created "Egbert," the economic egg, since it is not always easy to capture nine and ten year olds' attention without some creativity and motivation. Egbert was a hand puppet who became an immediate hit. Several Egberts were always available for the children to take home, with the understanding that Egbert would tell their parents what they had learned in school. As a part of this activity we role-played with Egbert, made murals and collages, prepared special reports, and learned new words.

Next we advertised for recipes in our class newspaper, asking permission to publish them in our cookbook. The children also wrote personal letters to well-known individuals in the community and throughout the country, requesting their recipes. The children were especially pleased and excited when they received a reply from Rosalynn Carter, First Lady of the White House. During this phase of the project, various resource persons were called upon to help us learn some basic economic principles. A market analyst for Sandvik Steel Company arranged a field trip to the plant, where the pupils observed the assembly line in operation and listened to managers of the company discuss how prices for manufactured goods are determined. Several guest speakers were invited to the classroom and gave informative presentations on operating a business.

After a few weeks of planning, we decided it was time to establish our business. Just before Easter vacation, the children chose to name their company the "Newton-Ransom Kids Corporation." Officers were elected, and the various stages of production required to produce cookbooks were identified. We role-played the productivity of an individual worker versus the assembly line, assigned jobs, and issued stock in the company. The stock was priced at 5 cents per share and was sold on a one-to-a-customer basis. A total of 99 shares of stock was sold the first week it was issued.

Recipes kept coming in by mail almost every day. In just a few days we received 125 recipes. Now it became necessary to make arrangements with *The Voice*, one of our two weekly newspapers, to set the recipes in type to be pasted on boards for photographic reproduction. One mother who is a commercial artist came to the classroom and introduced the children to kitchen art. Each student produced some art work on a 4″ × 5″ piece of paper. The collage of their artwork was used for the cover of the cookbook as well as throughout the body of the publication to add interest. The original art collage was reduced 58 percent for reproduction, and the reduced print was cut up and pasted on various pages throughout the cookbook.

Right before Easter, the newspaper writers produced the third issue of the class newspaper and included a sample recipe as a teaser for future cookbook sales. Copies of the paper were distributed to the childrens' parents, to all classes at the school, and to local and Scranton newspapers. Our advertising workers also placed ads in the two local newspapers to ask for recipes, and later used the same approach to sell the cookbooks. Newspaper coverage of the project was superb. Once people read about the cookbook, requests poured into our classroom. Many people included comments indicating that they thought this activity provided an excellent learning experience for the children. Our student vice president of the company recorded the orders as they were received, noting the date, customer's name, address, town, and zip code, and the amount of purchase. We were fortunate to have the cooperation of the school district in many ways. The cookbook was actually printed in the graphics art department of the high school. Parents also cooperated by volunteering to drive children on many of our field trips. The most exciting field trip for the children was a visit to the high school to observe the actual process of printing the 221 copies of the cookbook.

The officers of the corporation drafted a resolution to borrow $25.00 from the bank office of the Third National Bank in Clarks Summit to establish an account for the cookbook project. The children presented their resolution to bank officials and were given approval to open up a checking account for the Newton-Ransom Kids Corporation. The money from the loan as well as from stock sales and cookbook orders was deposited. Our treasurer was then given the authority to write checks and to pay bills. Our bills included $75.00 for typesetting, $13.01 for paper on which to print the cookbook, and $12.80 for film plates used by the printer. We also purchased envelopes from the school district and paid the postage for mailing the cookbooks to our customers. Throughout the project the children were introduced to fundamental economic ideas and generalizations through a variety of teaching strategies. A few of the learning activities are described below.

What makes our economy work? This activity was to show students how goods and services are produced, to explain the process of economic growth, to demonstrate the workings of the economic system, and to help them understand the relationship between producer and consumer. Egbert, our economic egg, served as the "tour guide" throughout this activity. Pictures from magazines were employed, as well as several filmstrips, including "Cities Need Services" and "A City Needs Goods," to make students aware of consumption and production and other forms of economic activity that surround their everyday life. Our discussion focused on consumer wants and the impact of consumer demand on the economy. The children began to see the importance of comparative shopping and the need for consumers to maximize their limited incomes to satisfy their unlimited wants for goods and services. The children discussed the role government plays in protecting consumers through regulation and control of the market system. Each child wrote letters to lawmakers expressing an interest in knowing how government actions influence economic decisions. The CBS documentary film, *Children of Harvest*, was used to explain the government's role in protecting the rights of migrant workers and their families. The students worked in groups to learn about people who start their own businesses, and they made charts showing different types of businesses and occupations, including those of their parents.

Business enterprise. What began as a simple project by the third- and fourth-grade youngsters had now burgeoned into a full-scale business venture. In preparation for publishing the cookbook, the children heard a presentation on the manufacture and types of papers available to publishers. The talk was by a sales representative with H. A. Whiteman Company, who served as a community resource person. The guest speaker discussed the many uses of trees and how one important product of trees is paper. The youngsters were asked to look around their classroom and see how many things were made of paper. They agreed that they probably needed paper most of all as students in a classroom. The speaker explained how chemicals are added to pulp to refine the paper and how titanium is necessary to make white paper. He described paper machines and how paper is first made into rolls and then cut into sheets. The children received many swatch books of sample papers from which to select their choices for printing their cookbooks.

Health foods. This part of the project introduced children to important concepts related to food preparation, meal planning, and personal health and hygiene. The values of health foods and their positive influence on proper nutrition were discussed in connection with the cookbook project. A community resource person spoke to the youngsters about the effects of sugar, salts, and preservatives in their diet. The discussion also focused on fruits and vegetables, and the children had the opportunity to sample such products as protein cookies, yogurt chips, carrot chips, soybean snacks, and sunflower seeds during the presentation on health foods. This led to a study of nutrients, minerals, carbohydrates, fats, vitamins, and proteins in connection with well-balanced meals and the primary food groups. Several films were used to reinforce these concepts, including *Where Does Meat Come From?* and *I'll Trade My Cookie for an Orange*.

A special field trip. A field trip is usually an exciting experience for elementary children, but even more exciting when four boys and girls, officers in the Newton-Ransom Kids Korporation, visit the superintendent's office to sell their first shares of stock in their cookbook publishing firm. The children explained to the superintendent that stock purchases were limited to a single share, priced at 5 cents. Their business trip increased their coffers by 15 cents, since the business manager and the assistant superintendent also purchased shares to insure the success of the venture. This was an assignment that the children enjoyed, and they were delighted with the terrific response from the school district, parents, and community. They wrote letters to express their appreciation to many friends throughout the area who helped provide investment capital to establish the company. New economic ideas were developed from this activity and included concepts such as common stock, capital, stock certificate, income, profit, dividends, investment, and corporation.

Advertising the cookbook. The children sent letters to many people asking for recipes to be included in their cookbook. The school district public relations office also sent news releases to help us get recipes. First on our agenda were lessons in letter writing to prepare the children to appeal to parents and friends to submit favorite recipes. Of course the youngsters were hoping for lots of recipes so that they could produce a cookbook that would make all of their newfound friends proud of their effort. A special edition of *The Three-Fourtonian* was issued with a request for recipes, but the greatest response came when area newspapers printed an article about the cookbook. The return mail for several weeks brought letters postmarked from Honesdale to Montrose and from Wilkes-Barre to Scranton and all points between. One of our advertisements is shown below:

> Wanted—your favorite recipes. The students in Grades 3–4 will be adding another publishing venture besides our newspaper. We're using our newspaper to advertise for your favorite recipe because we're going to publish a cookbook using our parents' and friends' favorite recipes. We want to have it ready for Mother's Day. Will you help us? Please send your favorite recipe to the Newton-Ransom Elementary School, Clarks-Summit, PA 18411. We'll appreciate it very much. Thank You!

Producing the Cookbook. A highlight of the project took place in the high school graphics art room when the students and some of their parents "walked through" the entire printing process of the cookbook. Under the supervision of the printer, they were shown how the camera is used to photograph pages for reproduction, how film is processed for negatives, how negatives are made into aluminum plates, how plates are burned, cleaned, and put on the press. The printer ran pages off the press for the children, who collated preprinted books in assembly-line fashion. The children were then shown how the folder works and how a stapling machine is used to bind books. The children helped staple the cookbooks and enjoyed using the foot pedal on the stapler. As a final operation, the children again formed an assembly line to count and package finished cookbooks. The children were excited when they saw a photographer from a local newspaper taking pictures of our work.

Selling cookbooks. Our cookbooks sold at $2.00 a copy and the recipes ranged from flower candies to main dishes, homemade breads, and delicious desserts. The cookbooks were mailed to customers in time for Mother's Day, and orders received after the deadline date were canceled, and checks returned to customers.

Our newspaper advertisement read as follows:

> If you really want to cook, here's something to cook with. The Newton-Ransom Kids Korporation is now taking orders for our cookbook. If you want to buy a cookbook, write a check for $2.00 and send it with your name and address to the Newton-Ransom Kids Korporation. There are some good things in this cookbook! This cookbook will let you have a ball in the kitchen. The recipes are yummy. So please ask anybody to buy a cookbook. Don't wait to order because our limited supply will be on a first-come, first-served basis. Order Now!

Concluding Comment

The first-hand lesson these youngsters learned about the complexities of business, from its conception all the way to a profitable operation, cannot be measured in words or numbers. The very magnitude of the problems involved in this project, engaging students in the third and fourth grades, surely says a great deal about the skill, daring, and confidence the children displayed as well as their ability and willingness to learn. Utilizing profits from our sales, the children decided to donate $50 to the Tackawanna County Association for the Blind and $10 to the American Red Cross. My personal reflections of the economics project are as varied as the activities we undertook and the successes the children achieved. I believe the most significant outcome was the learning of basic economic concepts which will serve as useful analytical tools to help children become responsible citizens. This project provided me with a wonderful, warm, and joyous experience as a teacher.

Economic Changes over the Ages

A Third-Grade Economics Study

Mary Kathryn Bourbonnais
Jefferson Elementary School, Shawnee, Oklahoma

Introduction

This project was designed to help third-graders become responsible participants in our country's economic system. My main goal was to integrate basic economic ideas and understandings into the existing curriculum where reading, writing, and arithmetic received major emphasis. I wanted the children to read stories, to write creative essays, reports, and plays, and to work math problems that dealt with everyday economic living.

Developmental Activities

We began the year by discussing the meaning of the word *change*. On the first day of school the children were greeted by a chart posted on the classroom door: "Vacation Time Is Over—It's Time for a Change!" Our discussion helped children become aware of changes in the ways people work and live, as consumers, savers, income earners, producers, and investors. At this point the youngsters were beginning to appreciate the many goods and services which they had, in the past, taken for granted. This activity paved the way for the development of the project, "Economic Changes over the Ages." I told the children that during the year we would study important changes in the economy that enable us to enjoy the standard of living we have today.

The project theme was written on the chalk board. My students started to discuss changes that were made from the age of the cave people to the space age of today. Creative thinking also was encouraged, as each child responded to such questions as the following:

- How would your life be changed if all of the money in the world disappeared?
- How would your life be changed if you had to produce everything you consumed?
- How would your life be changed if you were told when and where you could work as an adult?

- How would your life be changed if television and radio sets quit working forever?

The point to emphasize is the difficulty of examining changes in the ways people work and live without including economics as a vital part of the discussion. My students started to learn some basic economic concepts during the very first day of school. We began with a discussion of producer, consumer, goods and services, wants, natural resources, and income. The children were excited and motivated to learn more about economic changes, and they realized how and why learning takes place; they had fun while applying their efforts. A few of the learning activities developed in this project are described below.

Early people. Some of the goals of this unit were to help the students become aware of the basic economic wants of all people throughout the ages, to show the students the importance of capital and the impact of division and specialization of labor, to help them realize the significance of technology and innovation, to reveal that production is of great importance, and to provide pupils with opportunities for planning and decision making.

Early in the unit the conception of basic needs for food, clothing, and shelter was established. Pictures and stories about prehistoric life were used to develop a time line. We were dealing with a period before civilization, when there were no stores or factory-manufactured clothing, tools, and processed foods; yet early people survived in spite of many economic hardships. The children learned that the invention of tools and the discovery of fire were especially important to early people. The children loved to tell anyone who was willing to listen how early people discovered and used fire. The children would "light up" when they related facts about the economic changes that were taking place during this period.

A timely story about pottery was used to introduce basic economic ideas, and the children made pottery in class. With pottery in hand they enjoyed explaining how early people's discovery of pottery allowed them to store grain and barter for other goods and services. Because money (as we know it today) was not available at that time, grain was used as a medium of exchange. At this point in our study, children brought things from home to barter in class and they learned how the value or worth of these items was determined; they would not trade unless they felt they were making a good deal.

Early people's shelter will long be remembered by the students. The children constructed a cave in the corner of the room, to be used as a resource and learning center. They made a list of the resources needed, developed a division-of-labor chart and identified specialists who would build the cave. Economic concepts such as specialization, labor, capital, production, and resources became a part of the children's vocabulary. As an outcome of this activity, the children recognized the importance of having skilled workers to build our houses, and they were thankful for the many tools, building materials, and supplies that we have today.

While studying the basic food groups in our health class, we compared early people's diet to our own. The children identified foods cave people probably depended on for survival. Next, they collected and consumed various kinds of nuts and berries that might have been typical of a food gatherer's meal. This tasting experience helped to point out the dependence of early people on nature. Again, we were thankful for the changes which allow us to have so many kinds of food to consume today. Just think: without transportation, science, and technology, we, too, might have to make desperate attempts for survival.

The children appreciated the advantages of tools after they studied the science unit, "Tools and Their Uses." Each student made tools representative of the Old Stone Age. They concluded that even simple stone tools were better than no tools at all, but that cavepeople would have enjoyed a better life if tools had been made of steel and iron, or if electrically powered tools and machines had been available. They also learned that cavepeople showed a lot of ingenuity in terms of developing tools to meet their needs. A bulletin board, "Tools and Their Uses," was prepared to remind us about what we had learned.

Early people migrate to North America. This activity was designed to help students understand economic changes made during the Stone Age, to make them aware of the factors that influence consumer behavior, to show the importance of division of labor to increased production, and to help pupils realize that resources help determine production.

Early people's migration to North America became much more meaningful to the children after extensive map study and discussion. The movement across the Bering Strait was particularly impressive to the children, especially after they realized the hardships early people had to endure just to stay alive. The children learned that early people's survival continued to depend upon their ingenuity and use of natural resources, and the pupils were provided the opportunity to use their own ingenuity to find solutions to economic problems. They discussed changes (improvements) made during the Stone Age that helped early people raise their standard of living. The improvement of tools, production techniques, and consumer goods, including better housing, clothes, and food preparation and preservation were identified. Our study focused on the Indians of the Northeast, Plains, Southwest, and Northwest and the ways in which they satisfied their basic needs for food, clothing and shelter. Many of the previously discussed economic ideas were repeated; but in particular, this unit emphasized the importance of climate and natural resources in determining production and consumption.

After a discussion of foods, we prepared and consumed squaw corn in class. Most of the children prepared the recipe for their families. The sense of satisfaction they derived from preparing the squaw corn for their families prompted the children to assume active roles as producers of services in their homes. We compared division of labor in the early American Indians' homes to division of labor in our homes today.

Next we studied transportation used by the early American Indians. The children noted the importance of transportation to the Indians' success in satisfying basic economic needs. Transportation allowed the Indians greater access to goods and services and changed their standard of living. The highlight of this activity was a visit to the Stovall Museum at the University of Oklahoma in Norman. The museum almost seemed to be made just for us! Neolithic tools surrounded us, clothing used by early people was on display, and charts showing food sources and methods of transportation were available for our examination. The tour guide discussed at length the various changes early people had made from the Old Stone Age to the New Stone Age.

People of the two worlds meet. This unit was planned to show pupils that specialization and division of labor increased production. The new economic ideas to be learned were that changes made in transportation promoted economic growth, that production increased when people used specialized labor, that consumer demands changed as world markets were developed, and that new inventions such as the wheel and the plow increased agricultural production.

The Disney filmstrip, "Wheels in Progress," was used in this unit. It deals with the four great discoveries of the Europeans—the plow, the wheel, iron and steel, and domesticated animals. The class was divided into four groups to research and present findings pertaining to the great discoveries. Gathering economic facts and sharing information was fun for the children. When the class realized the Europeans had much higher standards of living than the Indians of North America, they immediately asked, why? They knew the American Indian had ingenuity. What caused the Europeans to be advanced? The children did research, gathered facts, and concluded that the Europeans had raised their standard of living because they lived in large groups, developed common languages and number systems, invented the printing press, and shared ideas which stimulated new inventions and improvements in the ways they lived and worked.

As a follow-up activity the children made a bulletin board to emphasize the differences in standard of living between Europe and North America. During a class discussion we talked about the idea that the people of Europe and America of those times should have met. If they could have met and learned to understand each other, many economic changes could have been made. Our discussion helped to point out reasons why Europeans were slow to discover America. For the people of the two worlds to meet, the Europeans would have had to overcome fears of the unknown ocean. The children made a list of the reasons why discoveries, explorations, and sea voyages had not been popular. They also prepared a bulletin board captioned "Crossing the Ocean Caused a Commotion." This activity helped focus our attention on the importance of Prince Henry's School for Navigators. The children realized that lack of knowledge regarding sea travel brought about fear and slowed progress. It was the children's conclusion that Prince Henry probably did more for trade than any other person in Europe.

The children wanted to know more about the brave, daring people who promoted economic growth. Each child prepared a booklet about a favorite explorer and was allowed to share his information with the class. Map study skills were introduced during this activity. We traced the routes of the explorers, discussed the hazards and benefits of particular routes, and noted the importance of each voyage to economic growth and development. The children "watched" world trade unfold before their eyes. The members of this unit were to reinforce their earlier learnings and add some new dimensions. Now they would learn about supply and demand conditions and how those conditions influenced economic development. The advantages and disadvantages of water and land transportation were also examined, and the children learned that the desire for trade opened up new trade routes. The discovery of North America was happening right before us as we role-played the Indians' first sight of the explorers. The class discussed the excitement of the Indians as they witnessed the explorers' use of domesticated animals, tools made of iron and steel, the wheel, and later, the plow. The children began to see that consumers were never satisfied, as they demanded more and better goods and services, that education promoted scientific thinking, and that producers change their methods of production to increase profit and reduce costs. By the time we finished this unit, the class had re-enacted the age of discovery and exploration and had become quite proud of the progress and economic changes accomplished over the ages.

New ways in the New World. This unit was designed to make students aware that consumer demand determines how productive resources will be used, to show students how pioneer families practiced division and specialization of labor, and to help students understand the economic problem of scarcity. They were to learn the meaning of "entrepreneur," and develop an appreciation of the economic motives for which the Pilgrims came to America. It would become clear that people's wants vary because of cultural differences, but that all societies have the same basic economic needs for food, clothing, and shelter.

This activity began as the children did research, wrote creative stories, and prepared a dramatization to show what life was like in an English village at the time of Columbus. The children acted out various roles of the period to portray farm workers, royal messengers, peddlers, peasants, blacksmiths, and pioneer families. Their dramatization made us fully aware of the importance of the individual consumer. The students noted that pioneer families wove their own wool into cloth to make their clothes. We also discussed how city people bought cloth from the merchants, and we determined that as more people moved to cities, more wool was needed by merchants and weavers. It became apparent to the children that the weavers were willing to pay high prices for wool to anyone who offered it for sale. This factor was reinforced when children discovered that farmlands which had once been planted in grain were quickly being turned into pasture for sheep.

The children put themselves in the squire's place and discussed what they would do if they had the chance to make money by raising sheep and selling wool instead of growing grain. They had some empathy for the squire; but most of the children sympathized with the peasants. The children kept saying, "Land was all the peasants needed to make a living." In spite of all our brainstorming, we could not find any way of helping the peasants obtain land without money, and there were no jobs available to them. The children understood the peasants' plight. Through further study the pupils learned that other Europeans wanted to come to America to gain religious and political freedom and to find jobs. The class wrote essays about the Pilgrims' voyages to America, conducted research on the London Company, and built model English manors and peasant houses as well as Pilgrim houses like those in the New World. They quickly pointed out that the Pilgrims would want to continue many of their European customs and ways of living, and that coming to America would bring hardships for the first Pilgrims. There would be no homes available when they arrived, and no markets or specialty shops, as they had been used to having in Europe. One student remarked, "They must have really wanted freedom, land, and jobs to come to America where they would have to start from the beginning again!"

The class sandbox was turned into an early American settlement by the children. Part of the class built an Indian village, while another group made a Pilgrim settlement. We role-played the Pilgrims settling the East Coast and employed division and specialization of labor to build our homes and stores. Now the children would learn that it was necessary for the Pilgrims to produce the goods and services they wanted because there were no stores. We watched filmstrips and filmloops, read stories, and did research to learn more about life in the colonies. The children would see the colonies prosper and observe the economic changes which were responsible for progress. It would become clear that specialized labor allowed the colonists to produce more and better products, that new markets would be established to accommodate expansion, and that settlements would grow as the population increased. After all the role-playing and building of model settlements, the children had gained a sense of pride and satisfaction in seeing the progress that had been made in the New World. It was now obvious that we could survive without the mother country. We grew to resent the King's orders and taxation from England. Independence from the mother country was about to become a real issue, and our feelings were so strong about America that we wanted to tell everyone what we had learned.

Now the class asked if they could write a script and present a play at our next Parent-Teachers Association meeting. They believed they could help a lot of people appreciate America more if they could share with them a few ideas about our economic system. The children finished the script and entitled their program "Stand Up for America." The play was a roaring success. Parents and friends gave the pupils many rounds of applause and a standing ovation at the conclusion of the program.

Better ways of working and living. We began this activity by reviewing the economic changes made by early people, Indians, explorers, Pilgrims, and pioneers. In particular, we noted the changes in food, clothing, shelter, tools, production, transportation, communication, and the use of productive resources. The children made booklets, collages, and charts and drew illustrations and cut out pictures to show the changes which were made over the ages. Essays, reports, tapes, chalk talks, murals, dioramas, and models were means by which we shared facts.

To climax our year's study the class planned a Pioneer Day. On this day we would contrast our ways of living with those of the pioneers by turning back the pages of time and dramatizing the westward movement. Our classroom resumed its workshop atmosphere as the children grouped themselves to make preparations. Each group transformed its little red wagon into a covered wagon by building and covering a frame to set atop it. The groups were given tools and materials, but no instructions, for building the frame. It was a thrill to watch them use their own ingenuity, division of labor, and specialization without being told.

Pioneer food and clothing were prepared for our special day. When everything was ready we set aside one day prior to Pioneer Day to discuss economic changes over the ages with our school administrators and parents. Believe me, these adults put the children to a real test! When the children used economic terms the adults would ask for definitions. The adults expressed amazement to hear third-graders fluently use terms such as entrepreneur, division of labor, mass production, specialization, ingenuity, markets, and economic growth in their everyday vocabulary.

We used modern transportation to go the the W. C. Gamel Farm, four miles east of town. When we arrived, the children once again grouped and pulled their covered wagons to areas within the ten acres that had been set aside for our use. They pretended to set up camp separately. Each group was accompanied by at least one adult, and they were asked to complete five essay questions and a creative story before they returned to the campfire. All their belongings were in their little covered wagons. Each group was a special sight to see! In contrast to the covered wagon, the Smith family pulled a 24-foot travel trailer to the site, so we were not entirely without modern conveniences. When the children completed their work, they returned to the campsite to prepare a typical pioneer meal of brown beans, boiled corn, cornbread, freshly churned butter, and fried apple pies. The food was the best I have ever tasted! We used a big iron kettle and cautiously cooked over an open campfire. (I found parent involvement to be an asset, and it was extremely good for parent-teacher rapport and public relations.) The children loved to share what they had learned with their parents.

Summary

"Economic Changes over the Ages" was a year-long, continuous project about people and their attempt to satisfy economic wants. It was an interesting story about consumers, producers, and inventors who were

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dreamers, adventurers, and builders. Through hopes, dreams, and endless aspirations, people throughout the ages made changes which shaped our nation's economy. The participation and role-playing of the children during our study allowed us to witness people making economic progress while fording rivers, felling trees to clear their land, and building roads, churches, and schools with their hands and brains.

From the beginning of our unit to the end, the students were encouraged to visualize in concrete terms the continuing economic changes in the ways people worked and lived. Through reading and research, the students discovered the significant factors contributing to changes, including the discovery of new resources and sources of power, the invention of new tools, and the impact of new ideas. Pictures, stories, and drawings gave students the opportunity to identify with the past.

The House the Children Built

Economics for Second-Graders

Betty Cole Muench
Fair Park Primary School, Little Rock, Arkansas

Introduction

This project was designed to involve the children personally in economic decision making. The students were given many opportunities to make decisions, including building a house, choosing carpeting, paint, and drapery materials, and shopping for household furnishings. They became familiar with economic terms such as opportunity cost, choice making, income, and consumer goods and services, as they made their decisions. The project was also designed to involve the parents in every phase of the economic education program in which their children were participating. The parents' support and enthusiasm for the project were evident in the amount of time they spent working with the children.

My class consisted of twenty-six children seven to nine years old, of differing intellectual ability and representing a wide range of socioeconomic backgrounds. At the start of the school year, I decided to teach basic economic concepts and practices to the students, but I did not have any specific ideas in mind. As the school year progressed I discovered that many of the children were highly motivated to learn, and their enthusiasm helped to get me excited and interested in teaching the subject. My principal and superintendent also gave me support and encouragement to develop an economics unit. Their interest was shown every time they asked me questions about the economics project that I was planning for the year.

Learning Activities

In the process of planning the unit, I concluded that the best way to have children learn economics would be to have them study their own families and to find out how families provide for their basic needs. It seemed to me that an activity like building a doll house would provide a hands-on experience that would stimulate the children's interests and involve them personally in the economic concepts they were learning. I discussed the idea with my principal and discovered that her enthusiasm matched mine. After organizing my thoughts and identifying specific goals for the project, I contacted parents and invited them to meet with me on several occasions to help plan learning activities. I also spoke with an architect, who volunteered to help put the finishing touches on the sketches and drawings for the doll house. A pharmacist with the Veteran's Administration in North Little Rock agreed to help us build the house. One of the pharmacist's hobbies was designing and building furniture. In fact, we learned that he had built several doll houses over the years and was currently in the process of designing his own house, which was soon to be built.

As the project began to take shape I developed learning activities designed to achieve the following objectives:

- To understand that there are not enough productive resources to satisfy our unlimited wants (the problem of scarcity);
- To learn that it takes people, tools, raw materials, and management to produce the goods and services needed to satisfy economic wants;
- To see that decisions concerning what to produce, how to produce, and for whom to produce are made in the marketplace;
- To show that because resources are scarce, people specialize in producing those goods and services for which they are best suited;
- To demonstrate the circular flows of economic activity involving the allocation of goods and services and the distribution of income to households;
- To explain that the need for trade develops as people become more interdependent through increased specialization of resources.

From the start, I was concerned about providing the background knowledge necessary for the work the resource people would do with the children. My primary focus was on relating the presentation of the resource speakers to the basic economic concepts emphasized in the instructional objectives we had set up. Our plan of study had to be flexible, since I did not know exactly how the resource speakers would cover the concepts, which I discussed with them in advance. I decided to organize the project into four main study topics: Establishing the Family; Planning the House; Basic Economic Concepts and How They Relate to Building a House; and The Finishing Touches. All of the topics overlapped to some extent in terms of the economic concepts developed in the learning activities.

Since children do not all learn in the same manner, it was necessary to employ a wide variety of learning activities and teaching strategies in the hope of motivating every student. We made charts, posters, bulletin boards, and booklets, so that the main concepts would be reinforced in different ways. We also read books, newspaper articles, and brochures, saw films and filmstrips, took field trips, and wrote reports about our experiences. Each activity enhanced the project in a special way.

We began our study by discussing the family. The pupils were asked to describe their families, and we concluded our discussion by pointing out similarities and differences among the families in the class. Next, we decided to select two children from the class to represent our family for the doll-house project. The students decided that the family should include both a mother and father, but they could not agree on the number of children to include in the household. At this time Kyle and Lisa were chosen to be the parents, and they decided they would both work outside the home to earn income. Kyle wanted to be an architect, while Lisa explored the possibility of being a teacher. The U.S. Bureau of Labor Statistics *Occupational Outlook Handbook* was used as reference source to help our student-parents learn about their occupations, including educational requirements, salary, and job responsibilities. A bulletin board entitled "Fishing for the Right Decision" helped reinforce the idea that choosing a job is one of the most important decisions individuals make as adults.

The children discovered that Kyle needed a college degree to be an architect. We learned that generally people are capable of earning higher incomes as they obtain more education, skill, and work experience. Next we estimated that Kyle could possibly earn an income of $35,000. But after doing some more research, the class determined that this income level was somewhat high for architects in Arkansas. Kyle, however, was convinced that our original estimate for his salary was appropriate! Meanwhile, Lisa found that the average salary for teachers in Arkansas was approximately $[illegible],000, depending upon educational experience and training. Interestingly, the students did not think it was fair that all teachers with the same level of education and experience were paid the same salary. They felt that "good" teachers should receive a higher salary than teachers who were judged to be "below average" in performance.

The children were becoming aware of the various living expenses families encounter on a daily basis. We prepared a chart showing the typical expenses for our student-family. The list included average monthly expenses for food, clothing, shelter, medical care, furniture, utilities, insurance, travel, and taxes. This led to a discussion of the different decisions families have to make, including the following:

- How will money be earned to pay for goods and services?
- How much money should be saved?
- How much income should be spent on food? clothing? housing?
- How many children should be in the family?

During our discussion, five steps for analyzing economic problems were presented. The children were asked to prepare a bulletin board showing how a family would use the five steps of economic analysis to solve their problems. The steps were: (1) defining the problem, (2) establishing goals, (3) identifying alternatives, (4) analyzing the consequences of alternative actions, and (5) choosing the best solution.

Deciding how many children would be in the family started out to be a very difficult problem to solve for Lisa and Kyle. They had twenty-four classmates who wanted to be children in the family. This seemed to be a good time to introduce the pupils to some important economic ideas related to the cost of raising children. We read, "The $3,000 Baby," in the local newspaper. The article contained information about hospital and doctor costs, the cost of furnishing a nursery, and the cost of clothing a baby. The children discussed the fact that a family's expenses do not stop once those initial expenses are paid; for example, the baby continues to require food, clothes, shelter, medical care, toys, and school supplies. After that discussion, Lisa and Kyle were asked how many children they wanted in their family; Kyle wanted four and Lisa, two. They decided to compromise, and the class voted on three pupils to represent the children in the family.

A resource person from the First National Bank in Little Rock came to discuss family budgeting with the class. This activity helped the children to understand how the family's income is used to pay for utilities, housing costs and doctor bills. The children were aware that their parents must continuously make choices about how to use the limited income available to them. We discussed the concept that satisfying people's wants for goods and services is the main purpose of economic activity. Our student-family had to decide how to allocate their limited money income among basic or subsistence wants and the wide variety of goods and services that provide the convenience and pleasant living they desire.

Using the five steps of economic analysis outlined above, I designed a problem-solving activity. I wanted the students to recognize that economic issues can be analyzed effectively only by replacing emotional judgments with a reasoned approach. Deciding whether to buy and remodel an old house, buy a new house, or build a house for our student-family constituted an interesting case study in the application of economic concepts and analysis to an important problem. First, we defined the problem by identifying the basic facts. The apartment our student-family was living in was too small and they needed a larger place. The main point emphasized in this discussion was that we needed to know where we were (apartment) in relation to where we wanted to be (house). Next, we identified our basic goal, which was to find new living quarters that would accommodate our needs. We began immediately to look for the principal alternate ways of attaining this goal, given our limited income. What were the possible options? Which options seemed to be best? We made a list of five alternatives:

- Buy an old house and remodel it
- Buy a new house
- Build a new house
- Buy a house that is several years old, but which does not need to be remodeled
- Move to a larger apartment

At this point we started to examine the consequences of each of the alternatives for the attainment of our goal. Advantages and disadvantages of each option were listed and discussed. The children worked in groups to investigate the various options and to reach decisions. They concluded their analysis by deciding that building a new house was a good investment, that it would be too expensive to remodel an old house, that buying a house might not be just what they wanted in terms of size, carpeting, and color scheme, and that moving to another apartment was not a good solution at the present time.

Once we decided to build a house, we contacted specialists with the skills, training, and experience necessary to help us plan. An architect explained how land is divided into lots which could be flat, hilly, or sloped, and could have water on them. The children decided to build their house on a sloped lot. We then discussed the utilities we would need in our house as well as the various rooms and their purposes. The class began thinking about room arrangement by drawing outlines or sketches of their own homes. By discussing their own houses, the children could see that rooms should be grouped and designed to meet the special needs of each family. Designing a house proved to be a very difficult task for the children, but they found this activity to be interesting and informative. They worked in groups and developed six different floor plans for their house. The six plans were placed together, so that the children could vote on the one they liked best.

Once our floor plan was chosen, we decided to contact a builder. This led to a discussion of how a house is built and the types of supplies and materials that are used in construction. The children had to decide where to place the garage, stairs, windows, doors, and hallways. They learned that when building a house people want to get the most satisfaction for their money, that a square or rectangular house is generally more economical to build, and that a two-story house costs less per square foot than a one-story house. The builder outlined the steps in building a house, from pouring the foundation and installing the plumbing and flooring to framing the house and putting up the outside and inside walls. As a result of this activity, the children decided to build a two-story house. For convenience, the garage was to be located on the side of the house.

The children were interested in finding ways to save money in building the house. John wanted to know if we could produce our own building supplies and cut down trees for lumber. We learned that people cannot always do everything for themselves because they do not have the necessary skills or tools, but that anything we could do for ourselves would help save money. This led to a discussion of the concept of interdependence and specialization of resources. We decided that people have to make some decisions about how much work they are going to do. These decisions include:

- How much money should be invested in tools?
- How much time is required to do the work?
- How much money can be saved by doing the work instead of employing specialists?
- What skills are needed to do the work?

The class began questioning the cost of the house. We wanted to build a house that would be comfortable to live in, simple to maintain, money saving, and have enough variety to make it interesting to live in. We discovered that the lot would cost about $12,000. This amount included the price of land, electricity, gas, water, and sewer connections. The cost of the house would depend upon the number of square feet. We talked about obtaining a home loan and found that it would take thirty years to repay the loan, with monthly payments totaling $558. At this time we took a field trip to the First National Bank to talk with bank officials in the Home Mortgage Department. Here we learned about the different loans that were available to borrowers, the kind of information that needs to be provided by potential borrowers before a loan application is processed, and what problems occur when borrowers are unable to meet monthly house payments. This learning activity enabled the students to apply many economic concepts.

This project provided an opportunity to use many different teaching strategies. Our social studies text, *One Plus One: Learning About Communities*, reinforced many of the economic concepts we were learning. Some of the concepts we studied included interdependence, technology, government, taxes, and resources. I also used ideas in *Economic Education for Arkansas Elementary Schools* and *Strategies for Teaching Economics* as primary resource materials. We prepared a bulletin board entitled "Catching onto Economics" to show the concepts we used in our work. After discussing our families, we developed a booklet which contained examples of the economic decisions and problem-solving activities the children experienced during the year. The new economic words added to their vocabulary were producers, consumers, basic needs and wants, goods and services and specialization. The children had begun to understand that economics is concerned with satisfying people's wants for goods and services. The pupils made a chart showing the different categories of goods and services. The following economic ideas were developed from this experience:

- Consumer goods satisfy our wants directly and include such items as furniture, houses, cars, and clothes.
- Capital goods are used to produce consumer goods and include items such as tools, machines, and factories.
- Durable goods such as houses, cars, schools, and furniture are consumed over long periods of time.
- Nondurable goods such as food, flowers, gasoline, and candy are consumed quickly.
- Public goods and services such as the post office, zoo, and fire station are provided by the government.
- Private goods and services such as cars, houses, and boats are owned by individuals or families.

In the process of planning our doll house, the children would learn that people in the United States are free to choose the type of work they want to do and the goods and services they consume. A bulletin board entitled "Freedom of Choice" helped remind us of the many ways in which individuals exercise their freedom of choice in the market system. As the project evolved, the pupils began to realize that production represents work done by people and requires the use of scarce resources. If it were not for production, consumers would have no goods and services to consume. At this point, the class made wall charts to explain the work their parents do. Pictures of their parents at work producing goods and services were made and used to review economic concepts. We were surprised to find most of the parents involved in producing services. As a part of this exercise, parents completed a questionnaire describing the work they did, the tools and machines they used in performing their jobs, and their educational training and work experiences. The information obtained from our survey helped the pupils realize that most people work outside the home to earn income. We also discovered that earning an income is not the only reason people work. Parents also indicated that the work they did made them feel they were contributing to the economic growth and development of society. The album "Free to Be You and Me," by Mario Thomas, was used to show the children the different types of work people do in our economy. We talked about job stereotyping and how people's attitudes about work roles were changing today.

A poem entitled "The Income Earners" helped to explain the meaning of money income. We learned that the size of a person's money income largely determines his or her share of the total goods and services produced. Students gained some understanding of the sources of personal income and the factors that influence the way income is distributed in the economy. A circular-flow bulletin board entitled "Money Flows: Where Do We Get It? Where Does It Go?" was used to help the children understand the concept of earning and spending money income. A field trip to the Arkansas state capital allowed us to see how tax dollars are used by government to provide public goods and services such as highways, education, and defense. The book *Ideas About Taxes* further enhanced our study of the government's role in the economy.

As we were preparing to build our house, it was easy for the children to understand the importance of productive resources. The concept was then broadened to include the production of all goods and services. We prepared a bulletin board, entitled, "Productive Resources Are Used to Build a House," to show how land, labor, and capital are used. Another bulletin board was created: "Unlimited Wants + Limited Resources = Scarcity." It called attention to the importance of using resources efficiently and effectively in producing goods and services. This led to a discussion of the energy problem. A resource speaker from Arkansas Power and Light Company showed the film *Electricity Today*, and discussed the current energy shortage in relation to the problem of scarcity. The children made posters to show ways to conserve energy. We reminded ourselves that builders begin their energy conservation when they design and build houses, and that new houses should be constructed with energy-saving in mind. A bulletin board, entitled "Decisions Have to Be Made Because of Scarcity," was developed and a poem, "The Forester," was used to emphasize the importance of making wise choices regarding the allocation of resources. This concept was carried a step further when the children made a booklet on the ways we use trees.

The big day finally arrived! Our house was finished and ready for display. The children could hardly wait to inspect the house, turn on the lights, ring the door bell, and open the garage door. Now that the doll house was finished it was time to apply what we had learned about making decisions as consumers, savers, investors, and income earners. The children became conscious that consumer decisions are made on the basis of income, taste, age, and other factors. It was easy for them to see how their personal preferences influenced what they wanted the doll house to look like. One morning our classroom turned into a "store" where the children could select carpeting, drapes, and paint for the house. Excitement was high the day the carpeting was installed and the finishing touches were completed. The children felt a great sense of accomplishment, and they were always eager to show the doll house to our many visitors. Our year ended before we knew it. We still had concepts we wanted to learn more about, and more decorating to do. The project kept the children motivated and interested in school at a time when it is especially difficult. This is the only way to end the year—sorry that it is over and wishing we could learn more!

Outcomes

Informal evaluation had been going on throughout the year. Formal evaluation included the *Primary Test of Economic Understanding* (available from the Joint Council on Economic Education). Group discussions, art work, stories, poems, reports, and tests all reflected the children's economic understanding.

Our project took us back to the basics. We learned to write friendly letters to people who had helped us with our work. We enriched our vocabularies and learned how to spell new words. New areas in arithmetic were explored, which would not have been covered without the project—drawing a house to scale and converting a model drawn to scale to the actual number of feet in a house. The children gained confidence in their ability to communicate as they talked with resource people and listened to their presentations. In addition to going back to the basics, the children were exposed to "real world" problems in a dynamic and stimulating experience. This is what education should be all about.

APPENDIX TO CHAPTER ONE

Good Ideas in Brief: Primary Level

BERNA JO GAYLER of *Crestwood Elementary School, Las Vegas, Nevada*, taught her third-grade students economics by starting a business venture. The class became very interested in growing and selling plants, so a corporation was established complete with officers and a board of directors. A market survey was taken to determine the demand for different types of vegetables and flowers. To raise enough working capital, the class issued stock certificates at 50 cents each to a total of 70 shareholders. The children observed division and specialization of labor: salespeople and gardeners were needed, rope hangers were hired, and artists were employed to decorate milk cartons that were used as plant containers. The children learned that natural resources, labor, and capital are used in producing and growing vegetables and flowers, and that division of labor makes plant-growing faster and more efficient. The children discussed the importance of advertising in their daily lives; they wrote some catchy articles for the school newspaper, and prepared signs and posters to promote their products. They also saw how competition affects business, and how the profit motive stimulates production. The costs of operating a business were examined, as the children learned about profits, dividends, investments, and retained earnings. Analyses were made of the impact on prices of consumer demand, and of the reasons why prices vary for different kinds of plants and vegetables. At the end of the school year, the business was dissolved and dividends amounting to 50 cents per share were distributed to stockholders. An annual report for the stockholders was prepared, giving a summary of income and expenditures for the company. Field trips, stories, essays, and written reports about plants and vegetables were used in the project. A post-test in economics was administered to the pupils when the study was concluded. Evaluation results indicated that the children increased their understanding of basic concepts and practices.

MARTHA OLDHAM of the *Orr Elementary School, Fort Smith, Arkansas,* has developed a number of activities and learning experiences to teach some economic concepts to five-year-olds. To show how the goods and services we want and need are produced, the children discussed "Presents," a poem by Marchette Chute. In the follow-up activity, the pupils cut pictures of the things they wanted out of old catalogs. The concept of scarcity was examined, and the children made choices among their many economic wants. This activity demonstrated that satisfying people's wants for goods and services is the main purpose of economic activity. The pupils learned the meaning of opportunity cost when they had to make decisions to consume particular goods or services. A needs and wants bean-bag game was used to reinforce basic concepts such as producer, consumer, and opportunity cost. Films, flannel boards, and stories were used also. A trip to a toy store introduced the youngsters to the process of production. The children were shown how the price of toys is determined on the basis of the resources used in manufacturing them. A cootie game helped the children to understand the various stages involved in manufacturing products. This led to a discussion of the importance of division and specialization of labor, and the impact of mass production and technology on economic efficiency. The children formed an assembly line, wrote stories, and drew pictures to show what they had learned. A newspaper article, "Toy Makers Use Star Wars," launched a study of how toy makers capitalize on movies and television programs to sell toys. Other concepts taught during the project were government, taxes, services, capital formation and competition. As a culminating activity, the class presented a puppet show. Each child made a sack puppet to represent a particular community helper engaged in performing a valuable economic service. The results of post-tests administered to the pupils indicated a significant increase in economic learning.

DEANNA SUE DYESS and SUZANNE D. MOVIDER of the *Pace Elementary School, Pace, Florida*, have developed a variety of techniques and resource materials to teach economic concepts to first-graders. This well-organized unit starts with a series of questions which help the children to understand the concept of scarcity. (Example: Do any of you make choices?) Goals and specific learning objectives are listed, as are the key economic ideas contained in the project. The game of musical chairs helped to demonstrate that when resources are limited, choices must be made. This was followed by an activity in which the students wrote stories and made posters describing scarcity situations that they encountered. Games and simulations were used to reinforce the concept of scarcity and the need to make choices. A story about the operation of a lemonade stand and the film *An Economic Adventure* were used to explain the factors of production. The children were divided into several groups to produce ice cream and to observe how specialization permits resources to be used more efficiently. The youngsters learned that the basic problem of scarcity makes it necessary for all societies to decide which goods and services will be produced, which will be postponed (opportunity cost), and when and how productive resources (factors of production) will be transferred from one use to another. Role-playing simulations were set up to demonstrate the process of production and to give the pupils opportunities to answer the basic economic questions. The role of banks was studied, and the impact of savings and investment on employment and income was applied to the circular flow of economic activity. This activity culminated in a field trip to a local bank to review the functions of money and to show the relationships among savings, interest, borrowing, and spending. Films, stories, and field trips were used extensively throughout the project.

FLOY PLUNKET LUPPEN of the *Terry Elementary School, Little Rock, Arkansas*, taught her second-graders economics by having the class write a textbook entitled "Talking T-Shirts." The class formed a corporation, issued stock, and elected officers. The story "How to Turn Lemons into Money" was used to explain how a business is established. The pupils read books and newspapers, made posters, and did research to learn about money, banks, financial institutions, and the publishing industry before they started their business. A resource person from a local department store showed the pupils how newspapers are published. The children drew pictures of many different T-shirts and selected 28 different styles and patterns to include in their book. The officers of the corporation decided to have 100 copies of the book published by a local printing company and to charge $1.00 per copy. The children prepared advertisements for area newspapers to announce the sale of their book. The costs of operating a business were examined as the children learned about profit, dividends, printing, collating, and binding. Other concepts taught in this project were specialization, budget, supply and demand, savings, taxes and production.

The culminating activity was an "open house" in which the children were able to sell the books to parents and invited guests. Role-playing situations were set up to teach circular flow, the functions of banks, and decision making. This activity helped the children to understand that productive resources constitute the input to production, while the goods and services produced constitute the output. They observed the kinds of human, natural, and capital resources required to produce textbooks and how the price of goods and services is determined. All parts of the curriculum were used to teach basic economic concepts.

SHERRIE GROVER GIBNEY of the *Fowler Drive Elementary School, Athens, Georgia,* has developed a large number of techniques and materials to teach economics to kindergarten children. A "Crazy Cookie Factory" was set up in the classroom to involve the children in a "real economic experience." Virtually every area of the curriculum was integrated into the project, including language arts, mathematics, art, science, music, and social studies. A detailed list of learning objectives is included in the materials along with a summary description of eighteen teaching activities. The pupils studied producers and consumers in the community by preparing posters using pictures from magazines, depicting goods and services and productive resources. These concepts were also applied to "Anatole—the Business Mouse." The children drew pictures of the story characters to illustrate the characters' needs and wants, cut them out, and pasted them in their workbooks. The children then discussed producers and consumers in their own families. In a discussion that followed, the youngsters were able to understand that in addition to goods and services, consumers also want leisure time in which to enjoy consumption. The filmstrip "Choosing Goods and Services" was used to help the pupils realize that consumers must continuously make choices about how to use their limited income to satisfy their unlimited wants. This was followed by an activity in which the students compared the prices at three local grocery stores for ingredients for a cookie recipe. They discovered that the array of prices confronting individuals and households helps determine the way they will spend their money incomes. To teach the concept of division of labor, the class prepared a wall chart listing the various jobs that need to be done in the cookie factory. The class was divided into groups to bake cookies, realizing that the group employing division and specialization of labor was more productive. The children discussed the role of banks and the functions of money in relation to the operation of the business venture. The children came to understand that profits are a particularly important factor in the market economy. The profit from the sale of cookies was calculated after the costs of making them were deducted from the revenue obtained from the sale. They also discussed the advantages and disadvantages of saving some of the profit from the sale of cookies. The filmstrip "Saving for Goods and Services" helped to point out that savings represent income not spent but placed in financial institutions such as banks. Daily evaluation was conducted to assess the students' performance. In addition, a twenty-item test of economic understanding was administered orally to the students at the completion of the program.

RUTH B. MAYES of the *Vegas Verdes Elementary School, Las Vegas, Nevada,* taught her kindergarten children economics by relating the basic ideas to the family as an economic unit. The children studied goods and services and how families provide for basic or subsistence wants. The concept of opportunity cost was discussed to help the pupils understand that when families decide to spend their money income they are involved in making choices—that is, they are choosing one thing in place of something else. A series of slides about the Pilgrims' early life in America was used to show how people's wants for some goods and services have changed over time because of technology and innovation. Ms. Mayes wrote a story about a Pilgrim family to explain how decisions were made to use scarce resources. The story was divided into several episodes, depicting various aspects of early people's work, the kinds of capital goods used, and the natural resources available to produce products and services. The children came to understand that we can think of people's wants as having both consumption and production dimensions. They learned that before goods and services can be consumed, they must be produced. The idea of a "bake sale" was employed to reinforce the concept of opportunity cost and the necessity for consumers to decide how to allocate their money incomes among alternate uses. Other concepts taught in this unit are savings, demand, scarcity, and specialization. Stories, flip charts, posters, and role-playing activities are used liberally.

MARIE E. MEEHAN of the *J. M. Ullom Elementary School, Las Vegas, Nevada,* developed a number of lesson plans and activities to teach her first-graders economic principles. The children were involved in an activity in which they became producers and consumers of "nature" candy. The children studied about consumers and producers as they prepared and consumed the traditional Pilgrim food of baked pumpkin and roasted pumpkin seeds. They also saw how division and specialization of labor make production faster and more efficient: they peeled pumpkins, cut them up, added honey and cinnamon, and washed, oiled, and seasoned the seeds. The concepts were further developed by having the children produce granola and by the making of place mats, menus, and invitations. The story of "The Three Billy Goats" was used to plan a puppet show and to teach such concepts as resources, opportunity cost, money, and choice-making. The scarcity concept was discussed after reading "Peter, Peter, Pumpkineater." In a role-playing situation that followed, the children learned that human wants always seem to outrun the productive resources available to provide those wants. The rhyme "Jack and Jill" led to a discussion of natural resources—including renewable and nonrenewable factors of production.

Other nursery rhymes were used to illustrate concepts such as interdependence, services, and scarcity. Filmstrips, films, poems, and resource speakers were used extensively throughout this two-week project.

MARILYN K. JONES of the *Auburndale Central Elementary School, Auburndale, Florida,* taught economics to her kindergarten children by involving them in the production of pizzas. The project began with a field trip to the Pizza Hut restaurant where the pupils observed the production process. Restaurant employees showed the children how to make pizza, wait on customers, serve food, and clear tables. Upon returning to school, the children discussed their experiences. They made a list of the different jobs they had observed and discussed division and specialization of labor and the high degree of interdependence among the restaurant employees. The students brainstormed what would happen if the baker didn't cook the pizzas on time or if the waiters and waitresses didn't clean the tables. The classroom was then converted into a pizza restaurant and role-playing situations were set up, with children volunteering for the jobs for which they were best suited. Group discussions, audiovisual materials, games, and many other activities were used to teach basic economic concepts. As an outcome of this project, the children learned to perceive themselves as both producers and consumers. They explored the ways in which various restaurant workers depend upon one another, and identified skills and interests that might lead to particular careers. The children also came out of this experience with increased knowledge of the nature of an economic system.

CHAPTER TWO

"Bee" Up on Economics

A Fourth-Grade Economics Unit

Stanley Wells
Echols Elementary School, Fort Smith, Arkansas

Introduction

"We're going to buy some bees!" This was what the twenty-seven children in my class went home saying last January. They were excited about the new adventure of buying bees and relating them to the world of work. Little did we know how involved we would become in the study of economics.

We wanted to use live bees because we felt that they would enhance our economics study. The more we discussed buying the bees the more excited we became. The class discussed many ways of paying for the bees. Since the children in Echols School come from affluent homes, they first offered to make donations, dividing the total cost among the class members. However, one student suggested that we borrow the money.

Our principal, Beth Manville, was interested in our idea of observing bees in the classroom and comparing their way of life to our own. She told the class that she had seen glass hives in every school she visited on a recent tour of England. Realizing the potential of such a study, she agreed to serve as our loan officer. Before she would lend us the money, there were several questions she wanted answered: How much did we want to borrow? How were we planning to repay the loan? What would be our collateral? For how long did we want the loan?

After we had a better understanding of credit, we went back to the questions Ms. Manville had raised earlier about our loan. If we were not able to secure the amount of money needed to repay our loan, then our loan officer would receive the bees. The bees were our collateral. We borrowed $20.00 at 6 percent interest, to be paid back in three months. Elaine drew up a contract, which was signed by the class members, Ms. Manville, and me. We told our loan officer that we would make a product and sell it to repay the loan. We had not yet decided on a product, but we wanted to produce an item that would make enough profit to pay for the bees. While we were negotiating with Ms. Manville to secure the loan, several students were

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getting information on where to order bees, prices of bees, and other details. Several students wrote letters to bee supply companies, the state apiary board, and to the U.S. Department of Agriculture. The class also obtained advice from a beekeeper on how to order bees. The beekeeper recommended that we order a gentle type of bee from the York Bee Company in Jesup, Georgia. So we ordered a two-pound package of "Starline" bees from that company. "Starline" very quickly became a household word. April seemed so far away when we ordered the bees in January, but how fast it would come upon us!

Learning Activities

Most of the students had seen a beehive only from a distance. I asked my father, who has kept bees as a hobby for over thirty years, to talk to us about technology in the beekeeping industry. He started by telling us about the bee's built-in equipment. He told us that only the honeybee has the equipment and know-how to change the nectar of plants into honey on a commercially profitable basis. No one tells the bee what to do, how to do it or when to do it. Bees do their work by instinct, not by being taught. The pupils learned that the worker bees have special organs for making wax and for collecting nectar and pollen. We discovered that they use their mouths to model wax secreted in their abdomens into perfect hexagon-shaped cells. Bees make propolis or bee glue from brown resin they collect from trees and use it to seal cracks and secure items in the hive. Bees are economical. They never waste any wax. Wax left over from making cells is used to cover honey and brood cells. The honeycomb is very efficient and economical. It is built entirely from wax produced in the bee's body. The children decided that there is no way people could produce a storage dwelling with greater efficiency, less expenditure of materials, or in so short a time. Yet bees build a honeycomb without the use of a single instrument!

My father told us that in addition to the bee's built-in machinery for making honey, people have invented tools which help to increase productivity in the beekeeping industry. He showed us a modern beehive and explained all its parts and their uses. He also showed us an old skep hive, which does not contain movable frames. It was more difficult to check and care for bees in the skep hive.

At another time I showed the children bee equipment that had been developed through the study of technology. I explained that honey used to be squeezed out of the comb after taking it from the hive, but that today extractors are used and the comb can then be reused by the bees. The children were also shown a solar wax melter which melts the wax cappings obtained in the extracting process. This is one way in which energy can be conserved. The wax can be manufactured into comb foundation or used in industry. We also saw special items of clothing that are worn by beekeepers to protect them from bee stings. We decided that beekeeping has grown into a very specialized science with great economic importance. We went back and reviewed how technology had helped in the production of honey. Then we realized that technology had helped in a much greater way in relation to items we use every day.

We had learned by now that bees are kept because they produce honey. We wanted to find out if there are other products that come from the beekeeping industry. To introduce students to beeswax, we did wax batik during an art period. We melted beeswax and crayons in baby-food jars and painted designs on cloth. The material was then dyed and the wax melted out by using a hot iron. One of our mothers sewed our pictures together to make a wall hanging.

Heather did some research to learn more about beeswax and its uses and shared the information with the class. She told us that beekeepers get beeswax from the honeycomb after they extract the honey. The comb is melted in boiling water. When the wax rises to the surface, it is dipped off. It is melted again and filtered to remove impurities. (Modern-day beekeepers use the solar wax melter to do the job more efficiently.) The beeswax is then used in products such as chewing gum, candles, cosmetics, lubricants, polishes, and adhesives. Industry uses beeswax to extrude fine wire at a very rapid rate. All of these are by-products of the bee. Heather told us that beeswax brought the first artificial light (candles) to people's shelters and was the first material used for modeling and sealing. She surprised us by telling us that the bee's sting (venom) can be used in the treatment of some illnesses, such as arthritis. Three of our mothers helped us to cook and serve goods made with honey, the bee's product. The children learned that honey serves as a substitute for sugar in many recipes.

Two students volunteered to find out how much honey is produced each year in our country. They made a chart showing honey production in the leading states. They found that about 205 million pounds of honey are produced in the United States each year. Florida and California are the leading honey-producing states. They told us that at one time honey was sold in the comb. Today's suppliers remove the comb and seal the honey in airtight containers to keep it fresh for a long time. We learned that commercial producers buy the honey and refine, bottle, and sell it.

Following a discussion on decisions concerning what to produce, we prepared a class chart summarizing what we had learned. The children came to understand that our spending (demand) at the market helps decide how much honey and bee by-products will be produced. We cast our "dollar vote." In our country consumers are free to buy and sell as they choose. When the consumers buy honey and bee by-products in the market, they are telling the producer what to produce. Another question was raised as to why the entrepreneurs did not raise the price of honey and those by-products. The students agreed that consumers had some alternatives. If the price was too high, they would just do without the products. They could always go to another store.

Students were asked to use reference books, textbooks, and library books to learn about the bee's role in pollination. Students wrote letters to

Congressman John Paul Hammerschmidt and to then Governor Dale Bumpers to ask about their ideas on making the honeybee our national insect. It is the state insect of Arkansas because its work in pollination contributes a great deal to the state's economy. We invited Fred Stecher, field representative for the Gerber Baby Food Company in Fort Smith, to tell us how his business benefits from the work of the honeybee. He told us that Gerber buys most of its fruits and vegetables from area farmers, and they depend upon the honeybee for pollination and better crop yields. He said the bee is more valuable in our area for its pollination service than for the production of honey.

The lesson that the class learned about interdependence through the study of pollination set the stage for a study of interdependence in the lives of the students. Dramatization was popular with the students, so another role-playing situation was created. Bill played the role of a physician. He started to go to the hospital to perform an emergency appendectomy. His car would not start. He was frantic. His patient might die. Judd, a mechanic, came by and started the doctor's car. A life was saved. Two days later the mechanic became seriously ill. The doctor was called. He rushed to the mechanic's aid in the car repaired by the mechanic.

The children also saw that members of their own families were dependent on one another. Later on in our unit they would see that the committees working on our bee booklet were interdependent. The students used our large world map to identify countries that carry on trade with us. When students found a product such as a foreign-made car on the parking lot or a piece of foreign-made equipment in the school, they would draw a picture of this product and place it in the space of the proper country on the map. The students were also responsible for finding out about items the United States ships to other countries.

In our social studies class we took a look at the countries of the world and their products. The developed and underdeveloped nations were studied along with the regions of our own United States. We listed on the chalkboard goods that are produced in certain countries because of their comparative advantage. Beginning with the interdependence that results from the bee's role in pollination, the class had now pursued activities relative to interdependence in the school, the community, the nation, and the world. Our investigations revealed that workers who produce one service or good have to depend on other people's services for the other things they want.

Culminating Activity

The time had come for us to make a decision on how to pay back the money we had borrowed. We had promised our principal that we would use what we had learned in producing a product. In a class discussion, someone suggested that since we had learned so much about bees and how they compare to the world of work that we ought to make a bee book. We liked the idea and decided that we could compile a book of facts about the honeybee. We would include honey recipes and interesting facts and clever sayings about bees. Our book would also include a copy of the then Governor Dale Bumpers' proclamation outlining the bee's valuable services in increasing agricultural production through pollination, with no traces of pollution resulting. We knew from our study of economics that we would all have to work together to put out a finished product. Each student would be assigned a task which called for his or her special talents. We knew by now that specialization increases productivity!

Before starting work on the booklet, I wanted students to learn about another method for increasing productivity. We asked Elaine's father, who works at our local Whirlpool plant, to tell us about assembly-line production. He described the assembly-line methods used in producing refrigerators at Whirlpool. We asked him if he thought we could use some of these methods in simplified form to make our bee booklet. He suggested that we continue with our idea of specialization and assign students to four committees—advertising, layout, production, and business office. He helped us to determine which tasks would be assigned to each committee.

When the booklet was finished and as a means of summarizing some of the economic ideas we had emphasized in its production, I wrote this question on the chalkboard: "What economic ideas did we use in making our booklet?" The class members responded that scarce productive resources had been utilized. The students were the human resources. Materials used in making the booklet were natural resources. The tools used in its construction were capital goods. Entrepreneurial roles were played by the teacher and supervisors, who brought the productive resources together.

Students serving on different committees specialized in the jobs they did. The students learned to use the tools and materials in which they were most proficient. When production slowed at any point, we examined our methods to see if the best use was being made of our specialists. Through the use of specialization and assembly-line techniques, the students noted from day to day how much more efficient production was becoming.

We spent a long time discussing a correct price for our book. We did not want to sell it for so low a price that it would be hard for us to make a profit, nor for so high a price that no one would buy it. I explained to the class that producer prices must be competitive if their products are to sell. People wanted our booklet, and they were willing to pay the price we had set. This was called effective demand. If the price had been higher, the demand would probably have been less. Profits would have been lower because of a smaller volume of sales. The main reason the class made a good profit was that the cost of production was kept low and the price was set at the highest amount which the business office thought the consumers would pay.

The children wanted to use our profits wisely. Since the whole school had helped us by purchasing our booklets, we decided to help in a schoolwide project to buy a tug-of-war rope. We also bought a book, *The Hive and the Honey Bee*, to add to our school library.

After purchasing these items we had $30.85 left. What could we do with this money? I reminded the children that the honeybee saved for the future. Could we take a lesson from the honeybee? The idea met with enthusiasm, so we planned a trip to a savings and loan company to put our money in a savings account. Our savings book was made out to Wells's fourth-grade class.

Ms. Smith, who helped us with our account, told us about the services offered by a savings and loan institution. She told us that our money would be making more money for us through interest payments. At the same time, our money would be used by someone else who needed to borrow money. The borrower would pay a higher rate of interest than the 5¼ percent paid to us.

The children were interested in the computer being used to open our account. Someone remarked that technology at the savings and loan company was much more advanced than the bee's technology! What we had learned at the savings and loan company sparked an additional activity dealing with financial institutions. Some of the children had savings accounts, and I asked them to share with the class their reasons for saving. They were saving for television sets, tape recorders, cars, and bikes. Some even mentioned that their money would be used for college.

The class members agreed that they were glad we were using some of our profits from our project to increase investment capital through a savings account. We opened our account with our remaining profits and earned 6 cents in two weeks. Many parents said they hoped this experience would impress on the children the need to get that "birthday money" into savings sooner.

With the $30.91 we now had we decided we wanted to do something special—something we would all remember and something in which a number of people would be involved. The class decided to have a family picnic. The children brought hot dogs and buns and the mothers fixed baked beans, potato salad, and desserts. What a great time we had with our new tug-of-war rope, as the fathers pulled with us! We also had sack races, a water-balloon-throwing contest, and a parents-children softball game.

The bees arrived on April 20. They were late because weather conditions had not been conducive to safe shipment. Excitement ran high throughout the entire school. Sometime earlier our school maintenance crew had prepared a chute leading to the outside through a classroom window. We stopped all other activity for the day to set up the hive and attach it to the chute. We prepared sugar water for the bees to use for food, since no honey had yet been produced.

The glass observation hive allowed us to see in action the things we had been talking about since January. We first watched the queen emerge from her tiny box that had been sealed and placed within the hive. The children were able to identify the different bees of the hive—queen, drones, and workers—even though they had only seen pictures of them. They identified many of the activities going on in the hive that we had read about.

The children also watched the bees' activity outside the classroom.

They were interested in seeing the kinds of plants visited by the bees and actually seeing evidence of the interdependence of bees and plants.

Since the bees were in a small two-frame hive, we could not keep them more than three weeks. They produced enough honey during that time for their own consumption. They would need more room to produce excess honey for people and for their needs during bad weather and during the winter season. We discussed what we should do with the bees to insure their survival. With my father's help I decided to set up a regular-sized hive in my yard, so that we could continue to watch the bees as long as the children were at Echols School. We could use profits from sales of honey to enable us to do other projects in the future.

Evaluation

All through the project I watched my students grow in their knowledge of both economics and bees. I was very proud of the information they took home and shared with their parents. Many parents told me that they had learned a great deal about our project from their children. Other parents told me how money-conscious their child had become. Before buying something, their child would weigh the alternatives and then make a decision.

We were very pleased to have over 375 people visit our room and view our glass hive. This number included parents, relatives, friends, teachers, other classes, a private kindergarten, and members of the administration. Since the students could answer almost any question that a visitor asked, I felt that the children had the knowledge that I had hoped they would acquire. One of the persons who viewed our observation hive was C. B. Garrison, our superintendent of schools. Dr. Garrison was very impressed with the proficiency of the children in answering his questions and telling him about the hive, batik, and the pictures of the types of bees. One child not only showed his drawings of bees but also told Dr. Garrison in great detail about the value of the honeybee to people, not only for making honey but in pollination.

Our principal, Ms. Manville, was also pleased with the knowledge the class had gained in the areas of economics and honeybees. She mentioned that even the disruptive students could explain any phase of the project in detail.

Everyone at our school became involved in our project. Teachers would bring in articles or books about economics or bees; students from other classes kept asking about the bees; and parents would send items from home that pertained to our project.

Parents also participated in many of our activities. Fifteen parents came to hear my father talk on technology. Over twelve parents served as resource extenders. The class invited their families to a picnic.

Having the observation hive in the classroom improved the students' work habits, because their daily assignments had to be completed before they were allowed the privilege of viewing the hive. They studied the honeybees in great detail and were able to identify the many activities going on within the hive. I asked the students to write about some phase of the project and relate it to both honeybees and economics. I was very pleased with the results. The students could relate the life of the bee to that of people. Again this showed me that the objectives of the unit were being achieved.

I was proud of my students when they told me how they wanted to spend the money they had earned from the sale of their bee book. The decision was not easy. As I described above, $15 were spent toward the purchase of a tug-of-war rope for the school. The students said that was something that the whole school would enjoy using. The students bought a bee book, *The Hive and the Honeybee*, for the school library as a remembrance of their economic-bee project. Two of our room mothers were paid for the materials they bought for us for our batik. And with the remaining money we had our family picnic.

I guess I will always be known around our school as the fourth-grade teacher who taught an economics project to twenty-seven students with the help of twenty thousand honeybees!

This Is Your Economic Life, Sixth-Graders!

A Year-Long Study in Economics

Sheila Organ
Woods Elementary School, Fort Smith, Arkansas

Introduction

Woods School is located in a neighborhood composed of relatively high-income families. When I arrived there in the fall of 1977, I found excitement among the staff concerning the teaching of economics. Facing my twenty-seven students, I was undecided about a topic for study, the instructional approach, and how I could make economics an integral part of the school program. I finally decided to design the study as a year-long project. My first objective was to make the unit relevant to the everyday experiences of sixth-graders. Second, the project was to be comprehensive in scope, in that several economic themes would be developed. Finally, the study was to involve the full participation of all pupils in the class. An activity approach would be used, and economic concepts would emerge from a variety of well-planned activities.

Plan of Action and Objectives

Following several days of discussion with the students, I settled on a plan of action. The unit theme for the year was entitled "This Is Your Economic Life, Sixth-Graders!" The main purpose of the plan was to teach economics in a setting that would be meaningful and interesting to the students. We would deal with their "real" world of economics. The following outline was established for each phase of the study:

Brainstorming. This first step was exploratory or motivational. Through class discussion, we raised questions and selected study topics to explore as well as some learning activities we might possibly use.

Talking it over. Designed to be the main thrust for each phase, this was the time set aside for developing economic understandings. Each activity was based on real-life experiences of sixth-graders.

Talking it over again. This part of the study was devoted to student evaluation. We always reviewed the new economic terms we had learned. Some of the children would tell what had interested them most in this phase, and I would ask each pupil to explain how economic concepts help to organize his or her thinking. Under the heading "Spotlighting What We Have Learned," I wrote on the chalkboard or on chart paper the main economic ideas expressed by the children.

Some specific goals of the project were as follows:

- To help children understand the economics of an all-new suburban residential neighborhood composed primarily of expensive houses and apartments;
- To build a background of economic understanding to use as a springboard for further study based on everyday experiences of sixth-graders;
- To help students understand that they make economic decisions every day;
- To show children that because money income and productive resources are scarce, they must decide how to choose goods and services they want from among many alternatives;
- To create an awareness on the part of sixth-graders that they are dependent on other countries for goods and services they use every day, and that this interdependence leads to specialization and trade;
- To recognize that the world's resources are not distributed evenly and

that each country specializes in producing goods and services which it is best fitted to produce;

- To develop an understanding of the economic importance of making rational choices regarding the use of leisure time.

Learning Activities

My apprehension about getting the year's study under way was quickly dispelled when we were discussing how new everything was in the Woods neighborhood. This gave me an opportunity to introduce the first phase of our project, "All Around Your Brand New Neighborhood." The children raised questions such as these: "Why are so many people moving to the Woods area?" "Why are so many expensive houses being built?" "How much do the houses cost?" "How do people pay for their new homes?" "Can the school building continue to accommodate more children?" "Why aren't more shopping centers being developed in the Woods area?" I explained to the children that we would undertake an economics study of the Woods neighborhood to find answers to their many questions.

Our first activity was a bus tour through the neighborhood. Prior to the trip I asked the pupils to prepare a list of places they wanted to visit. The list included places such as apartment buildings, small businesses (pharmacy, superette, restaurants, drive-ins), Fort Chaffee (military reservation), churches, schools, parks, housing areas where the children live, and some of the underdeveloped areas. The tour was fun! The children had an opportunity to see houses under construction, and places of business, and surveyors working at a new construction site. After the field trip the class was divided into groups which set up interest centers as a means of exploring the economics of their new neighborhood. At times the whole class was involved in planning activities for the interest centers, but a separate committee was responsible for developing each center. The following interest centers were created:

- New Homes We Live In
- Schools We Go To
- How We Use Our Land
- Businesses That Meet Our Wants and Needs
- Services For Our Neighborhood

New homes we live in. In this interest center there was a poster displaying this message: Why People Move to Our Neighborhood. Mr. Benson, a parent, was invited to school by the committee to talk about why his family chose our area to live in. Mr. Benson told us that he was transferred from St. Louis and wanted to purchase a house he could redecorate and which was located in the older section of our city. He explained that the demand for that type of house was greater than the supply available. So he decided to locate in a new area where he could find these advantages:

- Rising property values. (He explained how an owner could soon have a good equity in a house in an area where property values appreciate.)
- Good parks, playgrounds, open spaces, and access to public facilities
- Near schools and houses of worship
- A pleasant neighborhood with friendly people

The committee made a list of Mr. Benson's reasons for moving to the Woods neighborhood on a poster board and displayed it in the center. Next, the children prepared a questionnaire to send to parents to find out why most people moved to our neighborhood. The completed surveys were analyzed and a summary of the responses was prepared. The results indicated that there was a scarcity of desirable places in the city; that having a beautiful home with many conveniences was an economic goal of the majority of families in the neighborhood; that a house in a desirable area of the city was seen as an investment because its value would appreciate; and that access to all public utilities, schools, churches, playgrounds, etc., rated high on their demand list. In connection with this activity, I showed the film *Our Productive Resources* to introduce the class to the study of human, natural, and capital resources. They learned how resources are used to produce goods and services that satisfy people's wants.

During this phase, two of my students mentioned that their parents were having new houses constructed. We used this opportunity to talk about an entrepreneur who brings together land, labor, and capital resources to build beautiful homes and to develop new areas like the Woods neighborhood. Our principal, Mr. Freeman, and I took the members of the New Homes committee to visit a construction project and to interview the builder. We observed carpenters, bricklayers, and bulldozer operators at work and discussed division and specialization of labor. I asked the children to make a list of the productive resources being used, and they pointed out the following:

- Human resources included all of the people at work on the site and behind the scene.
- Natural resources were represented by the land and building materials.
- Capital resources were observed in the form of bulldozers, hammers, saws, and other tools.

Becky wondered where all of the money came from to build the new houses. We learned that the land developer borrowed money capital from a local savings and loan institution. The children were also introduced to concepts such as scarcity, government, profit, and interest. Many questions were raised by my students: "Is there a scarcity of any building materials?" "Does the city or state government have anything to say about how houses are built?" "How much do those houses cost?" The children discovered that labor costs are relatively high, since workers earn an average of $12 an hour. We determined that the cost of materials and of the equipment used to build the houses is increasing all the time. When we returned to the classroom, the members of the committee reported what they had learned. They decided to invite an official from the savings and loan company to discuss the role that a financial institution plays in developing a neighborhood.

Doyle Rainwater, from the First Federal Savings and Loan Company, came to the class and explained that a builder borrows money to construct a large number of homes. Mr. Rainwater said a builder will sell the houses to individual buyers at a higher price than it costs to build, in order to repay the loan and obtain a reasonable profit. One student asked, "Where do you get the money the builder borrows?" The class learned that the money comes from people who save part of their income. The children had come to understand that saving occurs when individuals, businesses, and the economy as a whole do not consume all of current income or production. In a follow-up activity, the children began to get some idea of the heavy financial burden their parents were carrying in purchasing a house in the Woods neighborhood. "I had no idea my parents paid $600 a month for house payments," exclaimed Jerry. For practice, I had the pupils compute the down payment and monthly payments on variously priced homes.

Next, I used the Squirrel's Club (where a student can put in a small amount of money each month to draw interest) to explain capital formation. I showed the filmstrip "Profit Motive" to give the students a better understanding of why people save. They learned that profit is the incentive for saving and investing and that entrepreneurs often depend on the savings of individuals to start businesses. The pupils realized that a business which shows a profit attracts the capital of investors. The filmstrip helped the children to understand that the growth and development of their neighborhood (new businesses, schools, houses, etc.) depend on entrepreneurs being able to borrow money capital. The class kept asking questions about how much profit is made on a new house, where the profit goes and how many houses are being constructed. We invited Jimmie Taylor, a local realtor, to our class to answer questions. Mr. Taylor explained that profit on the sale of a new house is shared by many people, including the land developer, the builder, the concrete company, the plumber, the electrician, the architect, the bank, the insurance company, the real estate broker, etc. The children realized that we were so interdependent that all of those people plus each of their employees shared in the profits. I asked the students to incorporate in their art lesson some of the economic ideas they had learned. Posters and drawings they made depicted the various stages of production involved in building a house.

Then came the big assignment. I asked the students to write a story telling what kinds of jobs they hoped to obtain as adults, how they would save money for a down payment on a house, what priced home they could afford, and how they would arrange financing. They were asked to compute the down payment and the monthly payments, including principal, interest, insurance, and taxes. As a culminating activity, the children drew a house plan for their "dream home."

Schools we go to. The committee in charge of the study on schools chose a place in the classroom for an interest center. A sign was placed on the wall that read: "What Do You Know About Schools in Your Neighborhood?" The children decided to interview the principals of all schools in the area, beginning with the Woods School principal. Each principal was asked to respond to the question: "What is the economic value of a school in the community?" Interest was so high concerning the advantages and disadvantages of public versus private schools that a debate was scheduled to discuss the topic. During this phase, we invited Ayleen Ragland, a former school principal, to discuss the benefits of public education. The class now began the task of using what they had learned to establish their interest center on schools. A mural was painted, showing the various schools in the area and which was labeled, "Public Schools Are a Public Enterprise." At the bottom of the mural there was a statement which read: "Education of Children Is an Economic Goal." We then made a list of the economic ideas we had acquired, including the following:

- Parents are willing to pay taxes to have good schools. What they must give up (more luxuries, bigger allowances for the children, etc.) in order to pay taxes is their opportunity cost. The real cost of providing education is giving up the possibility of producing something else with the resources.
- People have to economize to have good schools. They must decide how to use scarce productive resources. Land, labor, and capital resources helped build our schools. These resources could have been used for other purposes.
- A public school is a public enterprise. Taxes are paid to local government. A school board elected by the people provides educational services by deciding how to use the limited resources available to them.
- We have choices about what to do in school. We can study hard, acquire knowledge and skills, and learn how to compete in a world of technology and change. We can become educated consumers; drop out of school at age 16 or graduate from high school and go to work or go on to college. These choices are up to us.
- Schools provide a service. Teachers receive money wages for producing that service. Productive resources are required to build our schools. Most of the money used to support education is derived from property taxes.

How we use our land. The committee for this interest center led the class in preparing a list of all the ways in which land is used in the Woods neighborhood. The list included a wide variety of uses such as houses, playgrounds, parks, schools, businesses, roads, utilities, right of way, military base, and federal installations along the Arkansas River. These uses were recorded on a chart which was posted in the area of the classroom chosen for the interest center. A resource speaker from the military base near our neighborhood was invited to speak to the class on the use of land for military operations. A realtor then came and explained zoning and how it protects the residents of the Woods area. The students learned that because the demand for building sites in our neighborhood was very great, lots had risen to more than $100 per frontage foot, a price people with average incomes found difficult to pay.

Next, we studied the federal installations along the river, including dams. The pupils concluded that the Arkansas River Project was an efficient use of our resources, because the project helped to conserve land, created many new jobs, and boosted the economy of Fort Smith.

As a follow-up activity, the students sent questionnaires to their parents concerning land use in the neighborhood. The committee compiled the results of the survey and reported the findings to the class. The responses indicated that the children's parents wanted the area to remain mainly residential, wanted to be away from large shopping centers, car lots, and department stores, and would work together to protect the privacy and value of their homes. When the study was completed, the pupils assembled all of the information they had obtained on Fort Chaffee, the Arkansas River Project, and from maps and diagrams on housing developments in the area. They prepared posters to explain zoning laws and to show the location of businesses and small industrial sites.

Businesses that meet our wants and needs. The committee prepared a list of sixteen economic concepts related to the role of business in the economy. The concepts were defined and applied to the study of local business operations. Then the children made a list of the businesses in the Woods area and of the goods and services those firms provided to consumers. In addition, goods and services found outside the Woods area were listed. The children learned that only a relatively small section of the Woods area was zoned for commercial business. Thomas asked, "Why don't business people come to this area?" A local businesswoman came to the class to answer this question. The children discovered that businesses usually-follow people, and that there is not enough demand from the Woods area to justify the existence of some of the businesses found in more populated sections of the city. The pupils came to understand that suppliers locate close to malls and large shopping centers that attract customers. Suzi decided: "What goods and services are produced is determined by the dollar vote." Posters were made to illustrate the fact that goods and services are produced for people who are willing and able to purchase them. We reminded ourselves that our economic wants are unlimited, but that resources are scarce.

Services for our neighborhood. The group in charge of this interest center organized its activities around three questions: "What services does the city provide for the neighborhood?" "What problems are involved in providing these services?" and "What are the costs for providing services?" The enthusiasm of the students kept leading us from one activity to another. All the children seemed to agree that the main problem was related to the economic growth of the area and the increasing need to provide adequate services such as more fire stations, roads, sidewalks, street lights, water and sewerage systems, and parks and recreational facilities. One student remarked, "The growth of the neighborhood is too fast for the services to keep up!"

Our wide world of choices. All of the children seemed to agree that learning economics through the tours, speakers, and interest centers had been pleasant. As we continued to evaluate the study from beginning to end, I summarized on the chalkboard some of the main economic ideas we had learned. Our first unit had been so successful that we went right on into the second part, "Your Wide World of Choices." Our discussion opened with the children talking about parents and teachers making all of their decisions for them. They began to raise questions such as: "Why do grown-ups make all our decisions for us?" "Why can't we decide more things about what we like to do?" This discussion gave me an opportunity to explain to the children that they do make decisions every day and that many of those decisions are economic in nature. I had the children list their three most recent choices. The list included such decisions as whether to bring their gloves or not, whether to ride or walk to school, whether to use their money to buy a poster or Arrow books, and whether to eat cereal or a doughnut for breakfast. We reviewed some of the economic concepts related to their decisions, such as opportunity cost and choice-making. As we continued our discussion, the children, without realizing it, made choices about littering the roadsides with cans, bottles, and paper. In a follow-up activity, I talked with the students about our national economic system—a talk based on the idea that every nation must have a method of organizing the production and distribution of goods and services. I emphasized that in the United States the economy is influenced by millions of people, including sixth-graders, who make choices about how they earn and spend their money.

Evaluation

Being a new teacher, and especially new to economics, I was a little hesitant at the start of this year to begin such a complex study. I did so, though, in hopes that the students would learn that economics is all around them; not just in grown-up lives, but in their own lives as sixth-graders. Based on student participation and test results, I believe that I achieved some measure of success. I used the *Test of Elementary Economics (Grades 4–6)* and the results were remarkable. Out of a possible forty points, the median pretest score was 13, with a low of 5 and a high of 22. The post-test median score rose to 29, with a low of 14 and a high of 40.

Even better results were achieved from a fifty-point teacher-constructed test which the children took at the close of the study. The test was designed to evaluate the students' understanding of the basic economic concepts which we had studied. The median score was 37, with a low of 32 and a high of 48.

Movin' on . . . with Economics!

An Economics Unit for Fourth- and Fifth-Graders

Doris C. Wortham
Cook Elementary School, Fort Smith, Arkansas

Introduction

For several years I had considered developing an economics unit for my combined fourth- and fifth-grade class. I was encouraged by the success and enthusiasm of other teachers in the Fort Smith school system and decided to give economic education a try. Having had no background in economics, I began to do some reading on the subject and to formulate some ideas for the project. However, the more I read the more I realized that the study must be organized around the interests and abilities of the students.

At the start of the 1977–78 school year, the class discussed various topics we might develop in our study of economics. Meanwhile, our bulletin board of current events was attracting the interest of the students; they seemed caught up with the topic "Traffic Stoppers in the News," which was related to mobility and transportation. At the same time, the students new to our school were introduced by the bulletin board to the people who performed services for our school by delivering milk, food, and mail, by garbage pick-up, and by collecting paper for the paper drive. Students interviewed the principal, school secretary, media specialist, cook, and custodian to find out how they served our school and how they obtained the supplies and equipment used in their jobs. In class discussions, students began to realize how dependent we were on these people. The idea of focusing the unit on the movement of goods and services evolved from those activities. We discovered that eight students in our class walked to school, one rode the bus, nine rode bicycles, and six were in car pools. Just as those people who served our school were dependent on transportation, so were we!

We decided to do a school survey to determine what form of transportation was used most by the student body and why. Did it depend on distance from school? Do both parents work? As a result of our findings, we concluded that the movement of goods and services could be the thread that would give meaning and continuity to our study of economics.

Objectives and Methodology

In planning this unit, I wanted the children to achieve the following objectives:

- Gain an appreciation for the movement of goods and services by understanding the role of transportation in our interdependent society. The concepts of interdependence and trade would be emphasized.
- Appreciate the way economic factors determine or influence the movement of goods and services in a particular area. Such concepts as scarcity, economizing, making choices, and savings would be presented.
- Gain an appreciation of how our needs and wants are met in a market-oriented system and an understanding that jobs are dependent on such decisions as what and how to produce goods and services to satisfy unlimited wants. Students would come to understand the importance of economizing.
- Develop an understanding of economic and financial institutions through experiences in and out of the classroom.
- Learn that we are able to maximize the use of our scarce productive resources through specialization and technology.
- Exhibit an understanding that success in business is dependent upon the market economy and the use of productive resources. Activities would focus on concepts such as private ownership, profit, corporation, entrepreneur, and resources.

In organizing an approach to teaching economics, I wanted to utilize all subject areas rather than teach economics as a separate entity. Therefore, I used math, language arts, social studies, music, and reading in developing activities and instructional strategies for the unit. Each pupil was required to keep a notebook throughout the entire project. All worksheets, reports, stories, poems, and art work were placed in this notebook. As much of the planning as possible was left to the children. They were allowed to pursue activities and topics related to those objectives that interested them. Some guidelines and procedures were established to insure completion of the major goals. A variety of teaching methods was employed to develop economic concepts, including class discussions, panel discussions, debates, surveys, oral and written reports, films, filmstrips, tapes, reference materials, resource people, field trips, and games and simulations. Learning stations were set up so that all students could work in groups. Through actual experiences, the students developed an understanding of many economic concepts. I believe that this unit helped the class to gain a basic understanding of the U.S. market economy and that this understanding will be essential in helping them become responsible and productive members of society.

Learning Activities

Once the main theme of the economics study was established, the class was anxious to become involved. I wanted my pupils to form a corporation and actually manufacture some product, so they could see at firsthand how business operates. However, I felt that they needed a substantial background in economics before undertaking the task. The children's interest in how goods and services were provided for the school and how students travel to school led to a discussion of how cities and families get their goods and services. We spent several weeks planning activities to develop this topic. During this phase, we added new words to our classroom "Economics Express." Each car on the train contained a new word. After a while we had a train the width of our classroom. A weekly quiz was used to monitor the children's ability to spell the words correctly and to use them appropriately in sentences. To give children a better understanding of how families get many of the goods and services they want, I showed the film *Where We Get Our Goods and Services,* which explained how a business is organized and how goods and services are provided. The children discussed why every city has businesses and government agencies that offer goods and services.

To help pupils appreciate the role interdependence and trade play in providing goods and services, I set up learning stations in the classroom. Each station had study sheets and activity assignments that the pupils completed and recorded in their notebooks. Several filmstrips were employed to reinforce economic terms. We also made bulletin boards entitled, "Moving Goods for People in The City," and "How People Travel in The City," to remind us of what we had learned. The film *Middle Atlantic States* was used to help pupils understand that these states are "tied" together by a system of railroads and highways and that land and water routes intertwine to facilitate the movement of goods and services. Class discussion reemphasized that people and goods on the move form the basis for urban life. Next, we played a game in which the children tried to guess what modes of transportation were used to transport the furnishings in our classroom. They concluded that more than one mode was used for most items, and that we would not have many of the goods and services we take for granted if it were not for modern methods of transportation, available productive resources, and specialization.

At this point, we divided into groups to make charts illustrating the effect the automobile industry has had on our economy. Several charts and written reports were developed on topics such as motor vehicle taxes, household ownership of cars, materials consumed by the automotive industry, services needed by cities, and the relation of and transportation to personal consumption expenditures. After the charts and reports were completed, the children wanted to make a mural showing the development of transportation in the United States. We labeled the mural "Transportation Old and New." As a follow-up activity, I asked the class to read an article in the *Weekly Reader* on supersonic planes, the so-called SSTs. The children were fascinated by the idea that the "Concorde" was not allowed to land in the United States, and we had a lively debate concerning the pros and cons of the SST.

Meanwhile, Ruth Sewell's fifth-grade class was actively involved in an economics project related to health and nutrition. Since our classes work together in some curriculum areas, we decided to plan a joint project that would combine both economic units. As a result of our discussion, the Cook's Corner Shopping Center was created. Ms. Sewell's class built shops and eating establishments while my children concentrated on transportation and the movement of goods and services. The list below illustrates the types of businesses and public services we included in the shopping center:

Fire station
New-car dealership
Used car dealership
Post office
Port of Fort Smith
Moving company
Airport
Bus terminal
Highway department
Railroad depot
Ambulance service
Truck terminal
Police department
Rent-a-car agency

After all the buildings were constructed, the children laid out the streets and boulevards, complete with street signs, trees, parking lots, and recreational areas. When the shopping center was complete, each pupil researched the businesses the class had selected by reading, interviewing business people, and visiting the actual businesses. They compiled the information they collected and presented a written report of their findings to the entire class. The reports were organized around the following questions:

- What kind of machinery and equipment does the business or organization need and how much does it cost?
- What kind of people work here? What training and skills do they possess?
- Who owns and operates the business or organization?

- What kind of decisions have to be made in terms of providing goods and services?
- Is it privately or publicly owned?

By this time the children realized how much we depend on each other to provide the goods and services that we need. Our discussion brought out that even though we have so many goods and services, we still do not have all we want. Thus, they began to understand that resources are limited relative to human wants. Learning stations were established to introduce terms such as consumer, producer, production, scarcity, and opportunity cost. Students discovered that the basic economic problem of scarcity, which confronts all societies, comes about because people's total economic wants exceed available resources. The children learned that we must choose carefully the things we buy with our limited money income and that when we purchase something, we give up the opportunity to buy something else. I pointed out that when people or groups choose one good instead of another, they are making a trade-off—that is, they are trading off less of one thing for more of something else. Several students made a chart entitled "All Wants Cannot Be Satisfied," while others prepared a bulletin board captioned "Train Your Mind to Use Consumer Sense."

By using imaginary and real-life problems, the children began to understand that they must make choices and that in doing so, they had to consider many factors: Is this the best buy for the money? Will this product bring the most pleasure or satisfaction? Would it be better to save my money to get something else I want more at a later time? Is this the best use of my money-income? We viewed the film *Making the Things We Need* and discussed the fact that we cannot produce all of the goods and services people want in today's society. The class decided that group projects could best illustrate some of the economic ideas we has been discussing. Each group was responsible for a specific project, but an effort was made to tie the projects together when they were completed. One group decided to make a chart showing consumer goods, including houses, cars, school buildings, and nondurable goods such as food, clothing, and toys. Another group wrote a report summarizing the basic economic problem of scarcity. As each project was completed, the major economic ideas and terms were presented to the class in the form of a panel discussion.

The films *Productive Resources* and *Land, Labor and Capital* helped reinforce some of the economic concepts we studied, such as capital, production, and profit. As a follow-up we made a list of the various ways productive resources are used. The pupils concluded that people help us learn, that research contributes to good health, that specialists repair products, and that technology and innovation contribute to economic growth. We used *Your Guide for Teaching Money Management* to discuss inflation, credit, taxes, saving, and investment. Again, learning stations were organized to develop a basic understanding of the circular flow of money. We learned that in today's society, a great deal of our money income is used for leisure-time activities. The class came to realize that money management is an important subject to study. We made posters and bulletin boards to highlight the economic concepts were learned. The record "Sharp Shopping" was also used to stress the importance of making rational choices in allocating our money-income.

The children decided that a part of the solution for a family's money problems could be for its members to find higher-paying jobs or to get paid more money income for the jobs they do. One student explained what a higher minimum wage would mean for workers and businesses. Kim reported that inflation had created what is referred to as "the middle class poor." She suggested that families who earn a "middle class" income are now struggling to make ends meet because of inflation. The booklet *Keeping Our Money Healthy* described the role of the Federal Reserve system. The children had become aware that we live in a money economy, whether we are earning income to buy the things we need and want, saving it for future wants, borrowing money for immediate use, or spending money income on the goods and services we enjoy. We also read and discussed *The Story of Checks*. By this time, the youngsters were beginning to see that money served as a medium of exchange. They made charts and gave oral reports to explain some of the ideas they had studied.

Next we discussed the role of financial institutions in the economy. I emphasized that those businesses bring together the savings of people, pay interest for the use of money, and in turn make loans to individuals and businesses who need it. We also learned that in a market economy, goods and services are exchanged through the use of money, banking, and credit. The class was interested to learn that real income is the amount of goods and services their money income will purchase at a given point in time. I reviewed the major functions of money and asked the pupils to write reports related to consumer credit, coins and currency, the circular flow of income, inflation, and financial institutions. As a follow-up activity, the chapter on money and credit from *Introducing Economics* was read and discussed. We were now ready to have a resource person talk about banks and how money is created. Shirley Sallee of City National Bank came to our classroom to explain how banks function in the economy. To reinforce the concept that individuals may invest in corporations and to explain the process, I invited a resource person from a local stock brokerage firm to talk to the children.

Starting a Business

By this time the class was eager to start our major project of forming a corporation and manufacturing a product. They realized they would need financial backing for such a venture. The practical solution was to obtain a loan from the bank. Because of our study, the children knew they had no collateral and would have to depend on an unsecured personal loan. In order to get a loan, we knew it was necessary to develop a well-organized business plan. This meant knowing the amount of money we would need to get the business started, how long it would take to repay the loan, and what the prospects were for realizing a normal profit. The publication *You and the Investment World* gave the children an understanding of the different types of business organizations. After some debate, the youngsters decided they wanted to form a corporation in which everyone could be involved in taking the risks and sharing the profits.

Nominations were taken for officers to serve as the board of directors of the corporation. Our next task was to decide what to produce, how to produce, and for whom to produce. Because we had begun our study with the idea of concentrating on the movement of goods and services, some students suggested that the company build trucks, trains, or something similar that was related to transportation. Another idea was to start a bank. Suggestions were bounced back and forth for several days before a final decision was made. The class decided to combine the two ideas related to transportation and banking by producing ceramic banks. The banks would be made in the shape of a moving van. Everyone seemed to think that this product would appeal to friends, family members, and people of all ages. Our next step was to decide upon a name for our business. Suggestions were volunteered and a vote taken. The name selected was Transvan Corporation. We calculated how much money would be needed to purchase the raw materials and equipment to begin production, and made an estimate of potential sales. A ceramic supplier was contacted to find out the cost of the materials for producing fifty banks. We made arrangements with Ms. Sewell to have the ceramic banks fired in her kiln.

After doing some research, we began to calculate the total cost of manufacturing fifty van banks. To accomplish this task, we figured out how many banks could be cemented with one gallon of slip and how many could be painted with each jar of paint. The children included in their cost estimates anticipated losses due to breakage. We determined that we would need $87.68 to start our business. The class voted to obtain a bank loan for $75.00 and to issue stock in the corporation to raise the balance. The children were divided into groups to draft designs for their stock certificates. When the certificates were prepared, the stocks were sold to interested individuals, including students, parents, and friends. The stock was issued in blocks of five and sold at 5 cents a share. The officers of the company made an appointment to visit the City National Bank to obtain the loan. Having done this, we were ready to purchase the materials we needed to start production.

From our previous studies, we knew that more could be accomplished through division and specialization of labor. We made a list of the jobs needed for our business and defined the skills and abilities required for each task. We were reminded that in division of labor the workers had to cooperate so as to take advantage of the gains from specialization. They knew they had to work together and were dependent upon one another to produce efficiently. As the banks were produced, customer orders began to arrive. The sales department provided information concerning how many of each color were needed to meet customer demands. Manufacturing was extended over a three-month period. During this time we continued to study how a business operates. Our assembly line was set up one day a week and deliveries were made as quickly as possible. The children were beginning to realize that there was more to operating a business than simply producing and selling a product. Accurate records were kept on a daily basis to monitor sales, inventory, cash flow, and costs and revenue. The children were amazed at the amount of records a business must keep in order to know exactly where it stands in terms of profit.

The assembly-line technique worked well for our class project. The benefits of specialization made an impact when students discovered that some individuals worked best at painting or cleaning, while others were more effective in sales and recordkeeping. When the class had received orders for fifty-four banks, we decided to call a halt to production. The most exciting event during this time was a visit to our class by the editor of the Fort Smith *Times Record*, our local newspaper. The editor wanted to do a feature story about our economics project. We felt honored and pleased and were very eager to volunteer information and suggestions. We also had many interested parents visit the class during our study.

The class wanted to pay back the bank loan as quickly as possible. As soon as we felt we had a comfortable cushion in our account, the officers of Transvan Corporation made a trip to the bank and paid back the $75.00 loan. The interest on the loan came to $1.01. When all expenses were paid and our stockholders were given their dividends, we were left with a profit of $86.19. Of course, we all realized that this amount was somewhat inflated, because we had not had to pay for certain fixed costs, including rent, utilities, labor, and taxes. Nevertheless, the children were very proud of their accomplishment.

Culminating Activity

Our unit of study was now coming to a close. Suggestions concerning what to do with the money we had earned crowded in during the weeks following our business venture. Finally, the children decided by vote to spend about half the profit on a class party and the other half on something for the school. During the time Transvan Corporation had been in business, the whole school had been interested in our progress. Students and teachers came by daily to check on how many banks we had made, how many we had on order, and how much money we had made. Many students and teachers as well as the librarian, secretary, custodian, and principal had purchased banks. On two different occasions our corporation was featured in the school newspaper. Therefore, the support and interest exhibited by the entire school prompted the class to purchase something which could be engraved and left as a reminder.

Working through the principal and student council, it was decided to purchase a flagpole stand, a flagpole, and an eagle for the top. The stand was engraved: "Presented to Cook School by Transvan Corporation. Mrs. Wortham's 4th- and 5th-grade class, 1977–1978."

With the balance of the money the class decided to do something related to our theme "movin' on." Since it was not feasible to take an airplane trip, we had a skating party. That's as close as we could get, but they decided that perhaps it was appropriate after all when they saw their teacher "movin' on."

This still did not seem the place to end our unit. Everyone wanted to wind it up with a big bang. Therefore, we wrote a play, *Movin' On . . . with Economics*. Its purpose was to present an overview of the things we had studied, and every student had a part.

Students also wrote poems pertaining to economics. Selected poems were read between the acts of our play. Many parents and all classes attended the play and were most complimentary.

Scarcity in Our School

A Fourth-Grade Economics Unit

Geneva Parrish
Cavanaugh Elementary School, Fort Smith, Arkansas

Background and Goals

The study described in this report was designed for the twenty-five youngsters of varying abilities who made up my fourth-grade class. Most of the pupils were average or above in intelligence and of varying socioeconomic levels. Choosing a theme for the economics project became both a problem and a challenge after so many years of teaching third- and fourth-grade students.

The first semester was devoted to the study of basic economic concepts as they related to children's experiences. During this phase of the program, I developed an idea for the economics unit. Although the pupils seemed to enjoy school, they expressed a disappointing attitude about the cramped playground area, the small classrooms, the lack of adequate storage space, and the limited library and resources materials. In fact, the children had taken to frequent complaining about school facilities in general. A visit to our school library would invariably raise the question, "Why isn't this library big enough for us to get around in?" In the classroom they wanted to know, "Why don't we have enough running water and drinking fountains?" Many other questions were raised: "Why is our classroom so small? Why don't we have more places for storing our things?"

On the playground it was not unusual to hear comments like: "I just bet we have the sorriest little old playground anywhere." "Why can't the school buy that land over there and make a big playground?" These questions led to a class discussion and brainstorming session to identify ways in which the problem could be solved. After much debate, one perceptive student remarked, "Hey! Just look at what we don't have." The idea for our in-depth study, "Scarcity in Our School," was now under way. The most important aspect was that the children themselves had initiated the investigation and analysis of the scarcity problem. Some specific goals were as follows:

- To familiarize students with the problem of scarcity and such related economic concepts as opportunity cost, the market system, production, inflation, allocation of resources, and needs and wants;
- To provide the students with an experience in doing in-depth research through a study of the school building and grounds and to compare the results with those of another school in the district;
- To help the pupils understand the human, capital, and natural resources that are used in the construction of a school building and the opportunity cost involved—what could have been produced with the resources instead;
- To develop skills in written and oral communication, problem solving, objective analysis, debate, and group participation;
- To help youngsters to recognize the goods and services that are provided with tax revenue, including competing public wants such as highways, national defense, and education.

Learning Activities

I took my class for a walk around the school yard and through the building. When we returned to the classroom, I asked the students to list everything they had observed which they thought limited their opportunity to learn, and to make additional comments. The following criticisms developed from this activity:

- Limited facilities;
- Inadequate playground space;
- Not enough playground equipment;
- Small classrooms with no running water;
- Very few water fountains in the building;

- Inadequate restroom facilities;
- Not enough space for small-group activities;
- Limited library materials.

We proceeded to discuss the problem of scarcity—that resources are limited relative to our wants and that adding to our list of wants requires the use of additional resources. The children learned that all societies are faced with the scarcity problem and, therefore must decide what goods and services shall be produced. The children made posters, murals, and drawings to reflect what they had learned; children were shown fighting over swings, complaining about small storage spaces, and pointing out the lack of playground equipment. Next, I asked the children to write essays explaining why they thought the school's facilities were inadequate. They were asked to answer the question, "Why can't we have everything we want in our school?"

In a follow-up exercise, we made notebooks which contained questions and answers related to the problem of scarcity: What is scarcity? What does economizing mean? What is a consumer? What are consumer goods? I could see a dramatic improvement in the children's understanding of basic economic ideas and principles as they recorded their answers in the notebooks. Some of the concepts were reinforced in role-playing situations. We continued our study by having a resource person visit the classroom to explain how the school was built. Armed with old blueprints and school records, our guest consultant described how the building had been constructed in 1962. We learned that the city had sold a school bond issue to build the school, at a total cost of $296,025. The class reviewed the actual budget for the construction project, including expenditures for the architect's fee, kitchen equipment, and school furniture and supplies. The children seemed fascinated with the discussion on the budget and in particular with the set of blueprints for the building. The pupils came to realize that there had not been enough money appropriated to build the kind of school building that everyone wanted, and that choices had had to be made regarding the way scarce resources would be used. As a result of this learning activity, the following conclusions were reached:

- People have unlimited wants in a world of limited resources. The pupils at Cavanaugh School want more goods and services than can be produced with the school board's limited resources.
- The school board had to make difficult decisions regarding the use of its limited money income to construct the building. Economic choices are seldom easy to make.
- The people who originally planned the school wanted a bigger and better facility, but money income was relatively scarce. Therefore the board had had to economize—to allocate the available resources to best satisfy the needs of the community.
- Even though some children are not completely satisfied with the limited

facilities, the actual cost of construction exceeded the amount of money allocated to the building project. The balance of the funds came from money to be allocated to purchasing additional playground space and classroom equipment and supplies.

At this point, the children were asked to imagine themselves in the position of the board members and the superintendent when the decision was made to build the school. This led to another role-playing situation. A two-act play was written about the economic decisions that were made in 1962 when the school building was constructed. The play was called *The Economic Facts about Building Cavanaugh School*. Some of the pupils wanted to know why other schools have everything they need. To answer this question, we invited the principal of a neighboring school to visit the class. The principal was the chief administrator of a newly built school which contained many of the facilities the children in my class wanted in their building. In answering the children's questions, the principal indicated that the problem of scarcity exists in the new building and that hard choices had to be made in drawing up the proposed budget. As a follow-up acitivity, we visited the new school to compare that facility with our own. The children made a list of the differences they observed.

We continued our discussion of the scarcity problem and identified the reasons why people in all societies must make choices about how to use their limited productive resources to satisfy their unlimited wants. The children prepared a chart showing the many wants and needs of people living in our community. At the top of the list was a new school building. One student asked, "What kind of a school could we build if we didn't have to think about scarcity?" The class decided to draw plans for a new school that would contain all of the things they wanted. The plans included an elaborate layout for an auditorium, cafeteria, gymnasium, baseball field, tennis court, classrooms, playground, and parking areas. We invited a resource person to speak to the class and to give estimates on the cost of building our "ideal" school.

After some discussion on whether the city had sufficient resources to warrant building a new school, I asked the pupils to give written examples of the human, capital, and natural resources that could not be used in the production of other goods and services if they were used to build our "ideal" school. Some of the conclusions we reached were as follows:

- More police protection is needed in our city.
- Scarcity means we don't have enough resources, so choices must be made.
- Scarce productive resources could not be used to purchase new fire equipment.
- More fire stations are needed in the community.

This activity was concluded with a discussion on how to allocate scarce resources among alternative uses. The children began to raise questions: "Can we afford a new school?" "Would a new school be a wise use of productive resources?" "What could be done to the existing building to make it better?" "What is the opportunity cost of building a new school?" Some of the children began to realize that it was not possible to build a new school which contained all of the special facilities that they wanted.

During this phase the Fort Smith elementary schools were involved in a self-study and accreditation review by the North Central Association. We asked our principal to explain the process of accreditation and to identify areas of strength and weaknesses in the school. The principal pointed out several potential areas of concern uncovered in the self-study, including a too-small library, inadequate space for small-group instruction, lack of storage space, and a relatively small playground which was in poor condition in terms of accreditation standards and guidelines. Next, the students drew plans for a new school, incorporating recommendations for changes designed to meet the accreditation guidelines. Some specific recommendations were presented:

- Purchasing additional land for playground space
- Improving the existing playground
- Removing the existing playground
- Removing a partition between classrooms to provide enough space for a library
- Building two small-group instructional areas in a remodeled library
- Enlarging the storage areas at the expense of other facilities

The children learned that some of their recommendations were already being considered by the board of education. We proceeded to study the costs and benefits associated with each proposal being reviewed by the board. The PTA also became interested in helping to improve the playground and sent representatives to meet with the superintendent. As a result of the PTA's involvement and financial support, the playground area was blacktopped and the school board promised to acquire more property for expansion.

The children were delighted with the goods news. We analyzed the economic principles related to these decisions. The concept of opportunity cost was studied in terms of using the limited money income to improve the playground and giving up other things which could have been purchased for the school. The children agreed that spending the money on the playground was the best choice among the alternatives being considered. No decisions were made regarding the other recommendations or proposals. My students were gaining experience in applying the tools of economic analysis: problems were defined, alternative solutions were examined, and choices were made by comparing the costs and benefits of each of the alternatives. We also studied how these costs and benefits would affect different groups within the community.

Culminating Activity

Although it was obvious that we were not going to have our "ideal" school, the children still wanted to debate the issue and then take a vote. I divided the class into two groups to debate the question: "Should Cavanaugh Build a New School?" Both sides of the issue were evaluated and the pupils demonstrated their knowledge of economic concepts in presenting their views. Following our debate, a vote was taken. The class voted overwhelmingly for a "practical" school, and rejected the proposal for a new building. The class decided that with a few basic improvements the existing school and facilities would meet their needs. A School Appreciation Day was held at the end of the year to show how thankful we were to have a good school. Evaluation was an on-going process throughout the entire economics project. I was able to use a variety of methods to determine if students were increasing their understanding of economic ideas. Oral discussions, written reports, stories, debates, and other techniques were employed to assess the students' performance. A final examination encompassed the whole range of economic content covered in the unit. The results demonstrated that the students had developed a good background knowledge of such concepts as scarcity, opportunity cost, production, consumption, goods and services, resources, income, and many others. The students performed like professionals.

APPENDIX TO CHAPTER TWO

Good Ideas in Brief: Intermediate Level

FRANCIS THERESA ALLEN, of the *Bowen Elementary School, Louisville, Kentucky,* taught her fourth-graders economics by operating a "Kentucky Craft Shop." She introduced the unit by making a large outline map of the state and having the children draw in the rivers, forests, crops, and other natural resources. The students were introduced to many economic concepts such as barter, money, goods, and production, and were involved in making and selling handmade goods. Some interesting objects produced were corn necklaces, corncob pipes, pioneer dolls, potholders, rugs, flowers and vases, and bows and arrows. A "mini-economy" was set up in the classroom, complete with stores, a hospital, schools, and government agencies. Children discovered the importance of division and specialization of labor as they role-played various jobs. As the "economy" developed, it was necessary to add new businesses and to provide more services, including a post office, newspaper, travel agency, and art gallery. It even became necessary to build a jail and to impose fines on those who violated laws. The class studied about the industries and businesses in Kentucky and learned how to make decisions regarding the use of scarce resources to produce goods and services. The concept of competition was discussed when two pupils each decided to open TV stations. A variety of resource materials and methods were used to teach basic economic concepts developed in the unit. Filmstrips such as "Quilting in Kentucky" and "Kentucky Waterways" were employed along with numerous films, tapes, and reference books. Resource people from the community were invited to the classroom to help the children learn about different careers and about the state's economy. An assembly line was established to reinforce the concepts of specialization and interdependence through the production of model horses, and the children made puppets depicting athletes, coal miners, painters, barbers and other workers. Several field trips to local businesses were made to give pupils an opportunity to apply the economic principles and practices they had learned. A highlight of the project was the actual filming of an economics lesson by a local TV station for its evening news special.

DONNA LEE DAVIS of the *Belvior Elementary School, Twinsburg, Ohio,* developed a variety of activities to teach basic economics to the fourteen pupils in her adjusted curriculum class. She introduced the unit by discussing the Cleveland mayoral campaign. The students interviewed one of the main candidates running for mayor, raising questions about taxes, government spending, and voting requirements. The class prepared banners and posters for the candidate of their choice, wrote letters and articles for the school newspaper, and participated in a mock election. Preparing for the school's annual Halloween party provided an opportunity to expose the children to concepts such as budgeting, needs, wants, money, consumer, and producer. The class was divided into groups and made punch, candied apples, and other treats to sell at the party. This activity helped show the pupils how division and specialization of labor increase production. As a follow-up project, the children used the assembly-line method to help put together a newsletter for the Parent-Teachers Association. To introduce the concepts of economic wants and scarce resources, the children were asked to prepare a bulletin board using pictures of different goods and services, which they took from magazines. *The Primary Test of Economic Understanding* (Joint Council on Economic Education) was administered as a pretest and again at the conclusion of the project. The test results indicated a significant increase in the students' understanding of economic knowledge. Games, films, video tapes, written exercises, manipulatives, resource persons, and field trips were used throughout the year-long project. Role-playing and simulation games were used to teach concepts related to taxes and government spending. The children learned that city government provides the community with many goods and services in response to people's needs. Several activities helped to explain how income is distributed in the U.S. market economy.

BEVERLY DALY of the *Pat Deskin Elementary School, Las Vegas, Nevada,* had some interesting experiences with the stock market approach to teaching economics. The classroom operates as a mini-economy where fifth-graders become involved in making economic decisions. Ms. Daly began the unit by reviewing previously learned economic concepts such as scarcity, opportunity cost, competition, monopoly, supply, demand, and the factors of production. As the year progressed, a unit on commercial banking was developed to explain the functions of money, credit, and income in the economy. This led to the study of the stock market and Wall Street. A speaker from the University of Las Vegas was invited to the class to discuss the operation of the stock market. Students were introduced to terms such as dividend, shares of stock, broker, price-earnings ratio, over-the-counter trading, and bull market. The students were asked to read the stock market pages of the newspaper and to select a stock that they would like to "purchase." Ms. Daly presented some interesting facts on the history of the stock market. The students followed their individual stocks daily and interviewed their parents and friends to learn as much as they could about investing in the market. The film *The One Man Band Goes to Wall Street* was used to show a small business growing, incorporating, and selling stock traded on the New York Stock Exchange. The students continued following their stocks each day, computing gains and losses and adding new economic concepts to their vocabularies.

Eventually the pupils decided to form their own business, incorporate, and sell stock in "Creative Kids Incorporated." The company produced and sold macrame products and stuffed mice, using the assembly-line technique. A committee of students conducted market feasibility studies to determine product demand and to establish the selling price for the stuffed mice. The students had to calculate the total cost of production, analyze supply and demand factors, and plan an advertising campaign. During the project, the children decided to play the stock market "for real." After doing research, the class invested a total of $100 and purchased fifteen shares of Golden Nugget Incorporated. Games and simulations pertaining to the stock market helped to reinforce the students' understanding of basic economic concepts. As a culminating activity, the class received a special invitation to attend the annual meeting of the stockholders of Golden Nugget Incorporated. Reporters from all the major newspapers, including the UPI and AP wire services, were present to record the event.

JAMES UHLY and CINDI DOLAN of the *Alexander Elementary School, Alexander, New York,* developed a highly motivating approach for teaching economics to their fifth-grade students. The children are given opportunities to apply economic ideas to practical, real-life situations in the world of professional sports, i.e., stocks, draft rounds, team management, costs, profits, prize money, etc. A winter basketball tournament is created, with four teams of students actively competing for prize money. In a game called "Goods Charades," the children are divided into groups and instructed to dramatize particular goods and services. In another activity, the pupils make a collage from magazine pictures to depict various consumer goods. In carrying out the sports theme, the class is divided into "owners" who draft basketball players from the class. A basketball skill test is used to help the owners choose players for the team. When the owners have established their teams, they are allowed to sell shares of stock to interested investors. As tournament time approaches, the teams busy themselves making signs and posters, preparing for the game, selling tickets, and developing a game plan. With the actual playing of the tournament completed, the pupils divide up the prize money. Each team receives a share of the profit, based on its final position in the tournament, and dividends are distributed to stockholders. In addition to learning many economic concepts, the pupils improve their skills in mathematics and oral communication. An evaluation test is administered, which usually shows that the students have learned many concepts from this innovative project.

RUTH SEWELL of *Cook Elementary School, Fort Smith, Arkansas*, has developed a fifth-grade unit in which the pupils learn economics through the study of health and nutrition. Ms. Sewell discovered that most of her twenty-four pupils came to school each morning without eating breakfast. To introduce the project, all the children were invited to have breakfast at school one morning. Committees of students were formed to plan the menu, prepare the meal, make place mats, wash tables, etc. Grocery lists were prepared, shopping was done, and the total cost of the breakfast was calculated. Economic terms were introduced each day, and weekly tests were given to check the students' progress and comprehension. Local newspapers, reference books, *U.S. News & World Report*, encyclopedias, and other resource aids were available to teach economics. The project included a study of the AFL-CIO Amalgamated Meat Cutters' strike against Safeway and the impact of the strike on the food prices in Fort Smith. The class discussed how early people made use of natural resources such as the prairies, forests, rivers, wild animals, plants, and trees to meet their food needs. The pupils prepared a wall chart showing how these resources were used by the Indians and the pioneers, and how early people dealt with the problem of scarcity. The concept of opportunity cost was introduced as the pupils analyzed the reasons why early pioneers left their "comfortable" life behind when they moved west. The youngsters learned how capital goods were used to benefit the Indians and pioneers and how various methods were employed by early people to cook, process, and store their foods. As a follow-up activity, students came to school dressed as Indians or pioneers and they cooked and ate foods from each period. From this activity, the pupils gained a better understanding of the problems early people faced in deciding how to produce goods and services to satisfy their unlimited wants.

The closing of a neighborhood grocery store provided an opportunity to discuss the impact of consumer spending on the economy. After doing some research, the class made a list of the factors that contribute to business failure and success. The children learned about collective bargaining, labor unions, and the role of management when they interviewed striking meat cutters during a field trip to Safeway. Advertisements from the local newspapers were used to compare and analyze the prices of grocery items and to understand unit pricing. As a culminating activity, the entire class ate breakfast again at the school. Since the class voted pizza their favorite food, they decided to have it for breakfast—along with orange juice and milk!

DORRIS MORRIS and GEORGE NICKLE of *Warner Elementary School, Wilmington, Delaware*, have developed a classroom activity called "Beyond the Mini-Society" for their fifth-grade pupils. This experience enabled the students to gain a thorough understanding of the interrelationships among the economic, political, and social systems of a society. The TV series "Trade-Offs" provided the impetus for the project. The children were actively involved in making economic decisions using the problem-solving technique presented in the film series. This approach was applied to the study of basic economic concepts. As the project unfolded, a committee was elected to develop a slide presentation entitled "Economics Inc." Once the script was written, each student was given an opportunity to draw pictures illustrating the concepts being studied. A brainstorming session was used to review the economic concepts illustrated in the slide presentation. The students were directly involved in the planning of learning activities. This active participation helped to arouse their interest. In the course of the activity, students make many decisions and soon come to realize the need for using logical thought processes to solve problems arising in the daily lives. They also learn to live with the consequences of their decisions.

VIOLET MILLER of *Washington Intermediate Elementary School, Little Rock, Arkansas*, developed a well-organized unit in economics for fourth-grade students. Ms. Miller introduced the children to the economy of Little Rock by describing the city's industries and products. A publication from the local chamber of commerce, *The Metropolitan Economy*, was used as a reference in compiling economic facts and statistical data about the area. The students learned about revenue bonds as they studied various methods for financing new and expanding industry. The children became familiar with economic concepts such as specialization, interdependence, capital formation, and production. As the concepts were studied, the pupils made posters, wrote stories, did research, and presented reports to the class on the economy and people of Little Rock. A resource person from the community shared a wealth of information with the class on the local and state economy. From this discussion, the pupils came to realize the importance of interstate highways, railroads, electrical power, inland waterways, and the labor force to the growth and development of industry and manufacturing. The class took a field trip to the AMF Cycle Plant to study the manufacturing of bicycles. The filmstrip "Off We Go to the Bike Factory" helped the pupils to understand the various stages of production and the importance of division and specialization of labor. The children discovered that many bicycle parts are imported from other countries because they can be produced there at lower costs than in the United States. Watching the bicycles being put together on the assembly line brought to life the meaning of specialization and interdependence. A representative from the U.S. Small Business Administration was invited to the classroom to describe the special problems encountered by small businesses in Arkansas. The children learned that any manufacturing firm with less than five hundred employees is considered a small business. Next, the class studied transportation and its role in Little Rock industry. Some of the more unusual forms of transportation found in the city were identified, including the monorail, the snowmobile, and the balloon. Several films and field trips were used to reinforce the importance of transportation to the local, state, and national economy. The class toured the airport and observed people at work performing many different jobs. The children wrote songs, prepared bulletin boards, and did research in economics. As a culminating activity, the pupils made keepsake booklets which summarized the understanding of economic concepts they had gained from the unit.

LINDA HARRIS of the *Central Intermediate School, Blytheville, Arkansas*, created an economics unit entitled "The Newest Thing under the Sun" for fifth-graders. Ms. Harris made several presentations to introduce the pupils to some essential concepts related to the economics of energy. A five-step problem-solving approach was developed as a basis for exploring issues related to economics and energy. In one activity, the children were asked to identify the source of energy needed to make products work effectively and efficiently. Some of the items included on the students' lists were coal, natural gas, windpower (a sailboat), and electricity (a stove). Students played a bingo-type game called "Power" to help them understand the relationship between unlimited wants and scarce resources. A crossword puzzle containing economic and energy-related concepts was used to teach the pupils economic analysis and decision-making skills. Role-playing exercises and panel discussions were used to study energy conservation practices being carried out in the school and the community. Speakers from the local power company taught the students how to read electric and gas meters and demonstrated energy-saving techniques for home use. A student team was assigned to investigate the uses of electricity in the community, the school, and the home. All pupils wrote essays entitled "A Day without

Energy," in which they imagined what it would be like to live without different energy sources. In addition to learning many economic concepts, the students developed their critical thinking skills as they applied the tools of analysis to the study of energy problems in the United States. Field trips, poems, stories, debates, group discussions, and written reports were used extensively in this project.

CHAPTER THREE

Simulation Project for an Economics Unit

Donna Willadsen
Patrick Henry Junior High School, Sioux Falls, South Dakota

Introduction

This simulation deals with legislative politics as well as economics. The students were asked to draft a law for which they believed they would get support and which would alleviate some of the economic problems related to wheat production and exportation, described below. The simulation should be done after the students have completed some foundation work in economics; have become familiar with the basic concepts of scarcity, opportunity cost, and productive capacity; and understand the purposes of taxation. They should also have some background in our political system and lawmaking process.

The activity was carried out with a class of thirty students. I divided the class into six groups of five members. The size of the groups can be varied to accommodate fewer or greater numbers of students. Specific roles are assigned to group members, e.g., homeowner in the taxpayers' group, Democrat in the congressional subcommittee. It is essential that the teacher provide careful discussion and definition of each group.

Basic Concepts Included

The fundamental concepts and terms included in the simulation were:

1. Human wants exceed an economy's capacity for satisfying them.
2. Choices must be made regarding what, how, and for whom to produce.
3. Choices may be made in response to tradition, to command, and to the operation of the market system.
4. Opportunity cost and trade-offs.
5. Specialization, division of labor, and interdependence.
6. Productive capacity is determined by the quantity and quality of the factors of production, including land, labor (of which management is a part), and capital.

7. Foreign trade occurs because of differences in resources among the nations of the world.
8. Foreign trade benefits consumers and producers by providing markets and making available goods otherwise not obtainable.
9. Foreign trade is often redirected by government action in order to serve special-interest groups.

The Simulation

In Congress, a subcommittee is often assigned to hold public hearings on an issue; the hearings may ultimately result in specific bills being written or proposed for enactment. Various groups or individuals from throughout the United States are invited or may request permission to provide testimony on the issue. In this simulation, we will have a congressional subcommittee on agriculture listening to testimony on wheat production, exports, and price supports. It is the responsibility of the subcommittee to determine what kinds of legislation need to be written in order for the bill to be enacted by Congress as a whole. The bill will be written after the various pressure groups have given their opinions.

Some background information is helpful. In 1974, the United States exported nearly 58 percent of its total wheat output. This amount represented 44 percent of all the wheat exported in the world. In 1975, the United States increased wheat production by 10 million tons, all of which was available for export. It is important to note that wheat ranks sixth in dollar value of all U.S. farm output. During that same two-year period, the dollar value of exports of manufactured goods was 4½ times higher than that of all farm products combined. Wheat is fifth in dollar value of leading goods exported from the United States.

Past federal farm programs have included price supports and soil banks, as well as voluntary set-aside plans. Under the price support program, farmers could get loans from the federal government using their crops as collateral or could sell the crops to the federal government whenever the market price dropped below a predetermined price called parity; some of the food surpluses purchased under the price support program have been used in foreign aid programs and some to aid the poor in the United States. Under the soil bank plan, farmers were paid for not planting certain crops. In the voluntary set-aside program, farmers agreed not to plant a percentage of their normal crop in return for a guaranteed price support on what was produced.

The task of each group is to provide testimony and to lobby for the enactment of a law which would favor a specific point of view. The groups may need to negotiate compromises as they bargain with each other so that some form of acceptable and workable legislation will be passed.

Description of the Six Groups to Be Given to Students

Agriculture Subcommittee: You are members of Congress assigned to a subcommittee with instructions from the committee chairperson to draft legislation to attempt to solve some of the current farm problems. Your committee consists of a subcommittee chairperson from the majority party and members of both the majority and minority political parties. Your job is to listen to testimony made in public hearings by the other groups. You may ask questions as the witnesses testify or at any other time during the hearings.

It is your responsibility to write the best bill concerning the production and/or export of wheat that you believe will solve the problems and receive the support of the greatest number of special-interest groups. Remember, one of your realistic objectives is to get re-elected. Specifically, the bill should accomplish the following:

1. Improve the balance-of-trade position of the United States;
2. Improve the income and profit position of U.S. farmers;
3. Decrease the tax burden on U.S. consumers in the United States.

Taxpayers' Group. Your group is lobbying for lower taxes. You tend to favor a free-market system in which supply and demand would determine price. You are afraid that price supports would encourage overproduction and that taxpayers would end up buying and storing surplus output. You dislike making payments to people for not working, as is implied in the soil bank. You favor using food in export to obtain products we need, such as oil. You are opposed to foreign aid programs that give food to countries we might be able to sell to instead.

Farmers' Group. You are wheat farmers who are very concerned about the low prices you receive for your wheat relative to the overhead costs of producing your crop. Some of you belong to groups such as American Agriculture, Farm Bureau, National Farm Organization, or Farmer's Union. You do not all have the same views. Some may favor 100 percent parity, which is a guaranteed price for wheat set by the Department of Agriculture. This price is paid by the federal government (out of taxes) whenever the market price falls below a certain level. Some may favor a set-aside program under which some farm acreage is taken out of production in order to reduce supply and consequently increase prices for wheat. This might be a voluntary program in which government funds are used to pay farmers for allowing their land to remain fallow. Some may favor a subsidy program such as aid for purchasing fertilizer, low-interest loans for obtaining land and machinery, or low-cost diesel fuel for farm machinery. Some may favor a free market in which the forces of supply and demand establish an equilibrium price.

Environmentalist Group. Your group is concerned about upsetting the natural ecological balance and depleting our resources. One faction in your group favors restrictions on the use of pesticides, herbicides, and chemical fertilizers on farm land. They fear destruction of the land and disturbance of the balance of nature and are concerned about the use of chemicals to increase production. Some of the group also believe that cities should have green areas such as parks that would be places of beauty and respite from congestion. Many of the group favor restricting the spread of cities and wish to retain large areas of our nation in a natural wilderness state.

Consumer Group. Your group is concerned about high and continually increasing food prices. Your special concern is that food prices, which are more than 29 percent of the expenditures of low-income families, remain low enough so that people in that category are insured adequate, nutritious diets. You favor subsidies such as food stamps and foods free or sold at a fraction of the market price for low-income families. You are in favor of increasing supply so that consumer prices for food are kept low. You favor increased production of food products.

Summary

I began this simulation to help students realize that economic and political decisions cannot be separated in our system of government. I wanted them to accept the responsibility that each of them has as a citizen to participate in decision-making in solving issues and problems.

The simulation was used toward the end of the school year after my students had worked with units on Congress and economics. We used copies of bills from our members of Congress to illustrate how the final product looked, as well as copies of the *Congressional Record* for background in our debates. We also used current events reports presented throughout the school year, with the result that the students were aware of the farmers' "strike" and of discussions concerning the high cost of land and machinery in our area relative to the income received by local farmers.

On the first day, the students read through the simulation and were assigned to various groups and roles. On the second day, the subcommittee held hearings. On the third day, the congressional committee members reported on the type of bill they had decided upon.

Since our city is an urban island in the midst of an agricultural sea, there was sharp disagreement among the various factions. The students concluded that no bill could be written that would satisfy everyone and that the compromises negotiated were brought about more by political expediency than by concern for the economic good of the country as a whole.

In the words of one of my students, "It really would be tough to be a member of Congress." This statement is a reflection of the learning that took place as a result of our simulation.

Operation Paint

An Economic Education Project Conducted in Grade 8 Math

Kay Michael
Bidwell-Porter Elementary School, Bidwell, Ohio

The Setting

Bidwell-Porter is a K–8 school of approximately 445 students. The school is housed in two permanent structures and a portable classroom and has 18 teachers. One building was constructed in the 1950s and includes a cafeteria, restrooms, and classrooms for kindergarten through third grade. The other building was built in 1926 and is in extremely poor condition. It contains grades 4–8 and has a gymnasium and office facilities. Our school is part of the Gallia County Local School District, a unit created by the State Department of Education in 1973 after the charters of all but one of the sending districts were canceled. Up to that time, the small districts were very poor. With a utility company and other industries locating in our area, we have made considerable progress in offering the students the best education possible. However, our facilities in the elementary school remain as before.

The students who attend Bidwell-Porter are of average ability. Most of them are members of families who are considered to be low middle class or are on welfare. Our population has approximately 16 percent who are members of minority groups. Education in our school has focused on the basics; therefore, the children have had virtually no training in economics. My students' involvement in Project Paint was their first exposure to economic education.

The Project

We wanted to do more than just conduct classroom lessons using economic terms, concepts, and principles. Above all, it was our desire to develop a project which would interest all of our students and would provide opportunities for practical experience. Since we had been teaching in the building that was constructed in 1926 and the classrooms had not been painted in years, we seized upon the opportunity to incorporate economic education into a work experience by painting two of our classrooms.

We began the activity with two dirty, drab classrooms. Many economic lessons later, we ended with two freshly painted rooms. Our students designed and painted the rooms. One room was done with murals on each wall, and the other was painted with the school colors and included the drawing of a "Snoopy" caricature who serves as our mascot pirate.

Organization of the Project

We organized the project into ten lessons. Each included overall and performance objectives, materials needed, procedures to be followed, and evaluation strategies. In most of the lessons, vocabulary was presented and resource persons were brought in.

For this abbreviated report we present two of the sample lessons that were developed for Project Paint.

LESSON IV—BUDGET

Overall Objectives:

1. To understand markets, supply, and demand as related to our fund-raising project—selling candy bars;
2. To raise money to carry out the painting project;
3. To develop and understanding of the use of such bank services as checking accounts and savings accounts;
4. To understand the advantages and disadvantages of charge accounts;
5. To understand interest; and
6. To understand the difference between gross return and net return.

Performance Objectives: The student will be able to

A. Write a check and balance a checking account;
B. Identify a savings account passbook and calculate interest earned on a particular balance;
C. Identify charge account procedures and calculate interest due on a particular balance;
D. Discuss markets, supply, and demand as related to our project;
E. Understand that the profit rate is 50 percent on each candy bar.

Vocabulary:

1. balance
2. account
3. interest
4. compounded interest
5. checking account
6. savings account
7. passbook
8. percentage
9. charge account
10. credit rating
11. markets
12. supply
13. demand

Materials:

1. Mimeographed bank checks and deposit slips
2. Mimeographed savings account passbooks
3. Charge cards from various businesses

Procedure:

1. Distribute candy and collect money.
2. Discuss the concepts of markets, supply, and demand as related to our project.
3. Using mimeographed checks and deposit slips, teach the proper procedure for writing a check, depositing money, and balancing a checkbook.
4. Using a mimeographed bank passbook, calculate interest.
5. Discuss charge cards and their uses.
6. Calculate interest on the amount owed on a charge account.
7. Discuss and list possible advantages and disadvantages of a charge account.

Evaluation:

1. Fill out the following check in the amount of $92.15 to Kroger Company for groceries.

1614

__________ 19____

Pay to the
ORDER OF ______________________________ $__________

______________________________ Dollars

The Ohio Valley Bank Co.
Gallipolis, Ohio

Memo ________ ______________________________

1:442 · · · 04371:10 · · 1243:6

2. Our current balance is $129.95. Deposit $225.00 and write two checks, one for $9.16, and the other for $237.82. What is our new balance?
3. At an annual interest rate of 4.7%, calculate the interest on a balance of $600.00 for one year.
4. What would the annual interest rate be on a charge account with a rate of 1½% monthly?
5. What effect, if any, do the concepts of supply and demand have on our candy market? (Be specific.)
6. List two advantages of charge accounts.
7. List two disadvantages of charge accounts.
8. Interest which is figured on the current balance is called ____ interest. (ANS.: compound)
9. What is a credit rating and why is it important?
10. Is putting money into a savings account called a deposit or a credit?

LESSON X—PROJECT PAINT

Overall Objectives:

1. To understand the framework of economics;
2. To understand the concepts of a free-market system;
3. And to understand the accomplishments and experience the pride of work.

Performance Objectives: The student will be able to

A. Create designs and draw them on the wall;
B. Paint the room in the correct procedure;
C. Clean up and replace all equipment used;
D. Replace all furniture and wall decorations;
E. Answer correctly all questions in the summary master, "America's Wheel of Economic Progress."

Materials:

1. paint
2. brushes (paint)
3. rollers
4. buckets and pans
5. ladders
6. cleaning cloths and cleaning detergents for spills
7. brushes

Resource People:

Richard Kisor, custodian
Ron Twyman, teacher of class 8A
Lark Napier, art instructor
Kay Michael, teacher of class 8B

Procedure:

1. The painting of the room will be started during regularly scheduled art classes and completed during a nine-hour workday on Saturday. First, the students will sign their names on time cards, read their work schedules, and be instructed by their supervisor on their job assignment for the day.
2. Second, they will remove all furniture from the room or place it in the middle of the room.
3. Then they will cover all exposed furniture with sheets, newspapers, or plastic. They will cover the exposed floor with similar materials.
4. Next they will prepare all the necessary tools and mix and stir the paint properly.
5. Workers will start painting at the top of the wall and work their way down to the floor.
6. After the main part of the painting is accomplished, they will finish with the trim painting and artistically paint in the designs.

7. After the paint has dried, students will sweep and dust the room and then put the furniture and wall decorations back into place.

Evaluation:

1. The newly painted room that looks very clean and fresh
2. The feeling of accomplishment and pride in each individual's work
3. Objective test, "America's Wheel of Progress"
4. Pictures of the room taken before, during, and after completion of the paint project
5. A subjective paper on the individual's perspective on the painted rooms.

Summary

This project proved to be exceptionally rewarding for both the students and me. We were able to incorporate into the project many economic terms and concepts and many math-related activities. At the same time, we developed a sense of pride and accomplishment from the experience of painting the two classrooms. The atmosphere in the classrooms changed. More important, the attitude of our students has greatly improved since the completion of the project.

I received great personal satisfaction in having initiated my students into the study of economics. I believe that they are now familiar with important terms and concepts in economics. The students enjoyed the somewhat unconventional approach I used. As a result, I am sure that they would look forward to another economics unit as they continue their schooling. In summary, Project Paint proved that economics can be fun and is very useful in everyday life.

The Brainy Bunch Meets the Circular Flow

Jack E. Ammons
Glenwood Junior High School, Findley, Ohio

My project was developed as a three-part offering in the study of economics in junior high school. While the three phases of my project are interrelated, each can be used independently of the others, although I presented all three in the order described in this report.

Part I: The Circular Flow

The main goal of this phase of my project was to enable my students to gain a better understanding of how a market economy operates and to have them become aware that they are part of the market mechanism, which does such a fine job of satisfying people's needs and wants. The procedure for developing this phase of my program was to present the concept of circular flow through a ten-page cartoon story (the cover and page 3 are shown below). The cartoon story can be used effectively with any unit that deals with economic activity. It can be effectively presented in two or three periods, and it is my judgment that in order to do the activity justice, at least two periods are necessary.

The cartoon pages can be broken down into two divisions. In the first five pages, my "brainy bunch" explain how the circular flow operates, and in the other five pages, they put circular flow into practice by showing how all families and individuals fit into the economic flows in our economy.

Ample, pertinent information is included in the cartoon story to allow for both objective and essay testing. The glossary can be used in whatever way the teacher and/or students see fit.

One procedure I have followed has been to assign my students to bring in their own drawings of a circular flow on the second day of the activity. I then inform them that at the conclusion of the unit, they may have to complete a blank circular flow diagram, writing in the proper economic terms.

The students to whom the cartoon story has been presented have indicated that they have enjoyed using the cartoon story more than a textbook to study economic concepts and terms.

Although I had many resources available, I was concerned that most of them included only small amounts of pertinent information. I examined circular flow diagrams in different textbooks and pamphlets, but, after reviewing their limitations, I decided to develop my own drawings.

Another procedure I have followed has been to keep a copy of the circular flow diagram in front of the classroom. I have then assigned students to draw their own diagrams and then to explain the drawing by including some ramifications not found in the cartoon presentation. I feel this technique has been exceptionally successful since groups of eleven- and twelve-year-old youngsters have indicated that they understand this very important economic concept. To me, this has been an exciting and fruitful approach.

Part II: Candy Sale

Since our school was conducting a candy sale, I decided to incorporate that activity into an economics project for my social studies classes. Here was a perfect opportunity to take a real-life selling activity, not simulation, and to develop the concept of competition in the marketplace, i.e., to study the economic aspects of a candy bar sale.

The first step was to select team captains. They, in turn, chose their candy sales force. Each morning during the sales period, the teams would meet at the beginning of the period and write down the sales totals for their groups. Large sheets were placed on the blackboard so that the results could be seen by everyone. Each team had a daily total sheet. Behind it was a graph which showed the class which group was currently leading in the competition.

At the conclusion of the activity, students received bonus and extra credit grades. This experience was well worth the effort even though it did take some time. However, the results were especially satisfying because my seventh-graders easily outsold the eighth and ninth graders combined. There is little doubt in my mind that our in-class activities were responsible for our success.

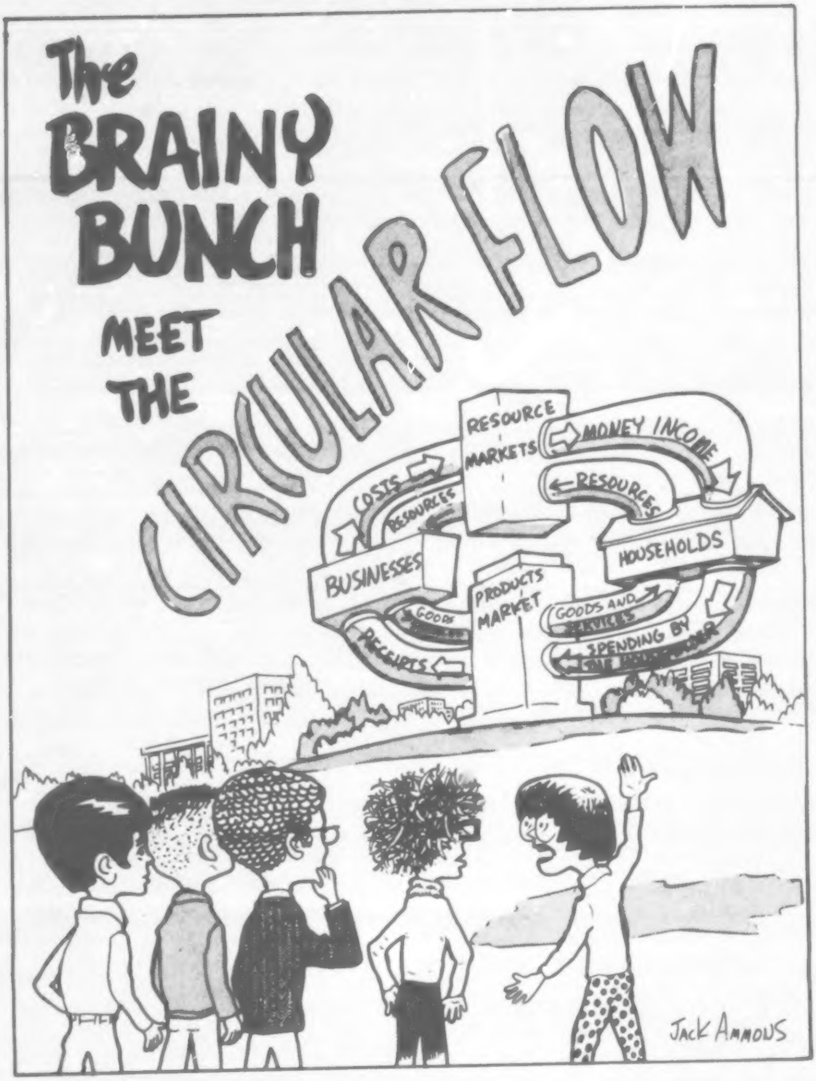
Part III: Booster Badges

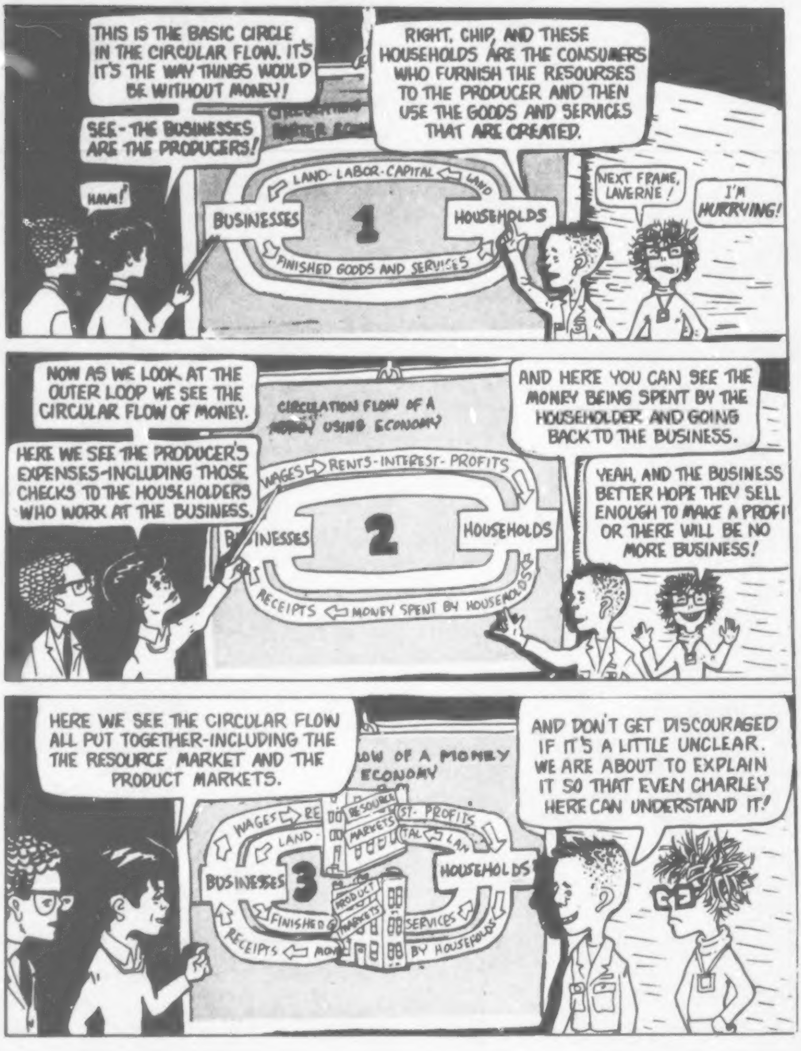
This activity was designed to give my students the experience of creating, producing, distributing, and consuming a usable product—handmade booster badges for an upcoming ball game. This four-day activity had as its major objective the development of an appreciation of private enterprise.

My strategy in developing this phase of my project was to have students read an assignment in our class textbook, *Sources of Identity—Man as a Producer*. Among the terms discussed were products, goods, services, raw materials, human resources, and capital. Each of these was defined in terms of our upcoming booster badge sales campaign. In addition to the words found in the textbook, I added division of labor, mass production, quality control, assembly line competition, and several others. I then had my students use the classified pages of the telephone directory (the "yellow pages") to differentiate between goods and services listings. Students were soon able to determine whether the enterprises listed produced a good or a service.

In the next phase of the project, each student was asked to bring to class a booster badge of his/her own design. On the second day of the project, "companies" were organized. Each firm then decided on the particular model of booster badge to be produced. The student whose badge was selected was designated to act as the company president and after that planning for mass production took place.

On the third day, the various companies began production. After working for a specified period of time, allowing for each company to determine totals and to clean up, preparations were made for the final day of production. Production on this day, the fourth, was better by far than on the third day. Students got down to work immediately, and all the wrinkles of the previous production day were eliminated. Following the production period, a final tabulation was made, and production results were announced to all members of the teams so that they could compute the profit and recover their investment capital as the products were sold.


The BRAINY BUNCH MEET THE CIRCULAR FLOW
RESOURCE MARKETS
MONEY INCOME
RESOURCES
COSTS
RESOURCES
BUSINESSES
HOUSEHOLDS
PRODUCTS MARKET
GOODS
RECEIPTS
GOODS AND SERVICES
SPENDING BY
JACK AMMONS


THIS IS THE BASIC CIRCLE IN THE CIRCULAR FLOW. IT'S IT'S THE WAY THINGS WOULD BE WITHOUT MONEY!
SEE - THE BUSINESSES ARE THE PRODUCERS!
HMM!
RIGHT, CHIP, AND THESE HOUSEHOLDS ARE THE CONSUMERS WHO FURNISH THE RESOURSES TO THE PRODUCER AND THEN USE THE GOODS AND SERVICES THAT ARE CREATED.
LAND - LABOR - CAPITAL
LAND
BUSINESSES
1
HOUSEHOLDS
FINISHED GOODS AND SERVICES
NEXT FRAME, LAVERNE!
I'M HURRYING!
NOW AS WE LOOK AT THE OUTER LOOP WE SEE THE CIRCULAR FLOW OF MONEY.
CIRCULATION FLOW OF A MONEY USING ECONOMY
HERE WE SEE THE PRODUCER'S EXPENSES-INCLUDING THOSE CHECKS TO THE HOUSEHOLDERS WHO WORK AT THE BUSINESS.
WAGES RENTS - INTEREST - PROFITS
BUSINESSES
2
HOUSEHOLDS
RECEIPTS MONEY SPENT BY HOUSEHOLDS
AND HERE YOU CAN SEE THE MONEY BEING SPENT BY THE HOUSEHOLDER AND GOING BACK TO THE BUSINESS.
YEAH, AND THE BUSINESS BETTER HOPE THEY SELL ENOUGH TO MAKE A PROFIT OR THERE WILL BE NO MORE BUSINESS!
HERE WE SEE THE CIRCULAR FLOW ALL PUT TOGETHER-INCLUDING THE THE RESOURCE MARKET AND THE PRODUCT MARKETS.
LOW OF A MONEY ECONOMY
WAGES RE
LAND -
RESOURCE MARKETS
ST - PROFITS
TAL LAN
BUSINESSES
3
HOUSEHOLDS
FINISHED
PRODUCT MARKETS
SERVICES
RECEIPTS MON
BY HOUSEHOLDS
AND DON'T GET DISCOURAGED IF IT'S A LITTLE UNCLEAR. WE ARE ABOUT TO EXPLAIN IT SO THAT EVEN CHARLEY HERE CAN UNDERSTAND IT!

Summary

My experience in presenting the three activities has been that in addition to learning economics, many other interesting things occur. For example, other teachers become interested in what my classes have been doing because the teachers are being pressured by their own students to carry out similar kinds of projects. When our products (booster badges) show up around the school, students, especially the cheerleaders, take particular notice. It seems that the excitement caused by this activity specifically turns out to be a real spirit booster for the upcoming ball game. But more important, I am pleased that my students have learned that economics can be fun. This has been very rewarding.

Careers

Emily Ehm and Robert Strickland
Jack London Junior High School, Wheeling, Illinois

Introduction

Jack London Junior High School had developed a unique, schoolwide career education and consumer math program which is the high point of each student's eighth-grade experience. London has approximately 550 seventh and eighth graders. Wheeling, Illinois, has a population of 17,000 and is located in suburban Chicago. Most Wheeling families are middle or lower middle class. Since the school also draws from Buffalo Grove and Arlington Heights, we have a number of students whose family incomes are somewhat higher.

London students whose reading skills are below average are placed in a reading lab. The others study reading and language arts in heterogeneous groupings. Students take both subjects with the same teacher and are scheduled for two 43-minute periods daily. Three English teachers are assigned to work with the eighth graders. In math, students are grouped homogeneously according to standardized and teacher-made tests.

One of the authors of this entry is a math teacher and the other teaches language arts. We worked jointly to develop a world-within-a-world curriculum. For half a semester each spring, eighth graders do not receive grades in reading and language arts. Instead, they earn "money" and with it they may buy grades, as well as actual jobs and many other experiences. The money they earn is banked and saved in the math department.

Goals of the Project

Our major goal is to have students actually experience the correlations among work, personal and group satisfaction, and money. Actual experience of these relationships by fourteen-year-old students may save them a more painful lesson later in life. We stress that work should be satisfying, that work should bring rewards other than money, and that spending money involves decisions about values. All three ideas are related to our primary goal in presenting the project.

A second major goal is that students should be introduced to the real world of finance which they will undoubtedly experience in the relatively near future. Our third goal is to introduce as many careers as possible to our students during the five weeks that we present the unit.

In order to achieve our goals, our program functions with a number of objectives:

1. To study careers in reading and language arts classes;
2. To improve basic reading and language arts skills by using these skills to learn and report about careers;
3. To introduce students to checking and savings accounts through the use of money, which has real value to the students;
4. To have students balance bank statements;
5. To have students make rational decisions on spending earned money in order to optimize satisfactions.

Our fourth goal, an important one, is to provide meaningful experiences to our remedial math students through daily practice of basic math skills. Each of our remedial students was expected to manage the accounts of ten other eighth graders by recording transactions for both checking and savings accounts, by auditing both accounts, and by computing interest on savings accounts. We also wanted our remedial students who had this responsibility to receive positive recognition from the entire eighth grade for performing a difficult task that is valued by all.

Activities

At the outset of the unit, the students are informed that during the next five weeks, instead of receiving the symbolic money (grades) they usually earn for school work, they will be given opportunities to earn "London money." We take the time to explain that it represents purchasing power and that it can look like anything, e.g., sea shells, as long as it is accepted in exchange for goods and services. At the same time, the math teacher begins teaching the remedial class how to maintain records of transactions, how to keep accounts for all 250 eighth graders, and how accounts are to be audited.

Each student in the remedial class is assigned ten accounts and is responsible for maintaining them—entering deposits, computing interest, and subtracting withdrawals. Since these students are also in reading and language arts classes with the other students, the remedial students get a review of the correlation between money and work.

All students learn about many career and job opportunities as they strengthen their English skills in slice-of-life situations. As they are "hired" they earn "London money" and choose what they want and how they will study from a long list of jobs. A contract is signed and each student is paid on the spot when a work project is completed. In all, we developed a list of thirty-one activities from which students might choose. In addition, other activities suggested by the teachers or the students are available. Some examples of the kinds of activities and the amounts of money that could be earned are: take the Kuder E General Interest Survey (required of all students)—L$300; interview adult workers—L$100; fill in a standard job application form—L$100.

Similarly, students were given a list of twenty-nine activities they could purchase. For example, to buy an "A" on the report card cost L$1,500, to buy a free period in the learning center to read magazines cost L$200, and to teach one half-day in the elementary school cost L$600. Among the various other activities students could purchase were to work as a teacher's aide, clerk in the office, or act as a custodian or gas station attendant. It costs L$500 to buy a half day's experience at each of these jobs. Students were also given opportunities to purchase ice cream, or to even to call their teachers by their first names.

Through the indicated activities, students learned a sense of responsibility by making decisions about how they wanted to earn money and how they wanted to spend it. The project had a number of additional benefits. For example, not only did students earn money by performing specific tasks, but they gained additional insights into the world of work that often are lost in the classroom environment.

Evaluation

There has been so much community, parent, teacher, and student enthusiasm about our program that it is difficult to know where to start in relating the values in evaluation. We have received a considerable amount of newspaper publicity as well as letters of praise from various school administrators.

The amount of language arts and reading work accomplished by our students during the five weeks of the project far exceeds that done previously in the same length of time. We are careful to grade all papers, which we treat as regular language arts assignments. Since money is charged for errors (usually L$5 per mistake), the quality of the students' work has improved considerably.

Basic math skills definitely improved in the remedial classes as measured by pre- and post-tests. For example, one poorly motivated lowachiever, who accomplished very little during the first two semesters of school, worked diligently and with great pride, even returning after school to complete his "accounts." That boy maintained the best records in the class.

We have had students return from high school and even college saying that they began their career planning in our eighth-grade program. In addition, we have had many observers visit school to review our project. The teachers who developed the program have had the opportunity of presenting it to various audiences throughout the state.

Any school can include this program in its curriculum. We have learned that as a result of our participation at teacher workshops, other schools have adopted our model. The program costs almost nothing and is adaptable to every community. As a matter of fact, it has been changed each year in order to better fit the needs and interests of our students.

APPENDIX TO CHAPTER THREE

Good Ideas in Brief: Junior High School Level

DANIELLE SPENCER and DIANNE BERGSCHNEIDER of *Feitshans Seventh Grade Center, Springfield, Illinois,* developed an interdisciplinary program, "The Mite $" (Mighty Dollar). Planned to link *M*oney, *I*ndustry, *T*echnology, and *E*conomy at the seventh-grade level, the program approaches economics from two avenues. First, filmstrips and teamwide simulation focus on consumer economics. Second, students are given the opportunity to examine the role of government in the economy and to compare the United States economy with alternative economic systems. A large variety of teaching techniques is used to motivate students to participate as economics is integrated into the curriculum. The primary disciplines involved are social studies, language arts, math, and science with enrichment support by music and art. Elements of each subject are included in the program.

In the social studies, which focus on world geography and cultures, the unit on economics facilitates an understanding of economic systems of other nations. In language arts, economic readings are used to improve reading, comprehension, and vocabulary skills. In mathematics, students learn how to apply percentages to economic activities. Metric education and the economic impact of a shift to metric measure are included in both math and science. While gaining a basic understanding of economic systems, terms, and concepts, students also undergo noticeable changes in perception. Disinterested or critical attitudes toward parents and the handling of money change dramatically during the simulation, which requires long-term budgeting and planning. Students develop an appreciation for financial planning and family budgeting problems. The planning that occurs during the lengthy simulation increases student responsibility as it inspires planning of other matters such as homework and study time.

LUCILLE TAYLOR, of *Hugo Junior High School, Hugo, Oklahoma,* developed an instructional program that was designed to equip her educable mentally handicapped students, 13 to 15 years old, to become self-supporting, economically efficient citizens. Because most of her students were not familiar with the concept that work is the principal means of acquiring needs and wants, emphasis in the unit was placed on increasing their awareness of employment opportunities for skilled and unskilled workers, on the development of positive behavior and attitudes, and on the acquisition of basic skills needed to function in contemporary society. The study of American history provided the basis for the program as students gained an appreciation of our heritage. This was followed by a review of government and how it functions. Instruction in practical applications, such as how to register to vote, voting requirements, and use of the ballot and voting booths, emphasized the students' responsibilities as citizens. Effective work habits, respect for authority, attitudes toward health and appearance, honesty, and duties and responsibilities of workers were discussed. In addition, shopping simulations, banking activities, budgeting, filling out applications for jobs, installment buying, meal planning, car buying, and obtaining a driver's license were built into the program. Several field trips were conducted so that the students would have some real-life reference points. The results of the program were reflected in the students' improved attitudes toward their own work, the desire to earn income to support themselves rather than depending upon welfare, and the development of a sense of pride in themselves as responsible citizens.

DALE A. LAMBERT, of *Sterling Junior High School, Eastmont School District No. 206, East Wenatchee, Washington,* developed an elective course to introduce economic principles, structure, strategies, and activities in an honors course for eighth- and ninth-grade students. The program is a one-semester course and is organized into twelve instructional units. The basic philosophy of the program is to allow students the opportunity to gain practical and academic experience and personal competence in economics in accordance with their interests, abilities, and motivation. The primary goal of the course is to help the students identify their roles in the American economic system, and to establish the place of economics in theirs and their families' lives and in the functioning of the local economy. Student activities are centered on role playing in an economic decision-making process. Once the students understand their direct involvement in the economy, emphasis is placed on the comprehension of basic terms, concepts, and theories in economics. In addition to a variety of basic textbooks and instructional materials, newspapers, transparencies, masterprint sets, films, sound filmstrips, and games and simulations are built into the program.

LLOYD HUFF, BARBARA PAULIN, and FRANCES PRUYN CORCORAN of *Algonquin Junior High School, Des Plaines, Illinois,* developed "An Economic Analysis of the First American in Illinois." The unit emphasizes an interdisciplinary approach and is meant to be included in the North American History program of studies.

The purposes of the unit were (1) to create an awareness that cultural variations and similarities are the product of historical forces (cultural dynamics and cultural statics) and that examples of selected cultural institutions such as the nuclear family, bands, tribes, and chiefdoms can be found the world over; and (2) to develop in the American history curriculum a sense of the evolution of society from a traditional economy to a market economy by stressing time relationships based upon cultural and economic history. Among the many materials included in the unit are a teacher's manual, maps, graphs, charts, transparencies, and a slide presentation.

The theme, the North American Indian, proved successful in both social studies and language arts classes: teachers and students who became involved in the various activities gained a new perspective on the American Indian. Pre- and post-test results, using the *Junior High School Test of Economics* (Joint Council on Economic Education), indicated a substantial gain in cognitive knowledge of economics.

GARY E. JOLLIFF, a teacher of ninth-grade educable retarded students in the *Harding Freshmen Building, Marion, Ohio,* organized a series of activities to develop a basic understanding and practical applications of economics. Time-money relationships, concepts of work, and methods of handling and spending money were presented in mock classroom situations to twenty-two students, 15 to 17 years old. Time cards, the earning of play money for hours worked in the classroom, and the charging of fees for nonessential activities (excessive restroom visits, requests to go to the drinking fountain, to lockers, etc.) were used to initiate the unit. Additional related activities in practical economics were developed, which included computing wages from time cards, establishing banking procedures, including savings accounts, and budgeting the spending of wages. Responsible handling of income was emphasized when students had spent all of their wages and were unable to enjoy some of the extra privileges that were available, e.g., playing checkers, unstructured time, and participating in classroom parties on Friday afternoons. Writing checks and budgeting for basic monthly bills were added activities. As the class seemed to be prospering, upon occasion a surprise bill—for example "son needs dental work," or "car has broken down"—would appear on the blackboard, symbolizing the situations that create obstacles to financial planning. Through the many phases of the unit, students learned how to tell time, developed more punctual habits, learned how to handle money, and showed they understood the correlations between work and money.

BARBARA D. CONRAD, an eighth-grade social studies and math teacher at *Stone Valley School* in *Alamo, California*, developed "Surviving," a simulation focused on the inclusion of economic geography in social studies classes.

In the simulation, each student received a legacy from "Aunt Mathilda." However, to qualify for the inheritance, students had to meet certain responsibilities. Among these, each was expected to select a five-acre virgin plot of land and to survive on it for a period of one year. Since the acreage was to be located no closer than five miles from the nearest town, students were expected to anticipate and obtain all needs considered essential to surviving alone for the full year.

The eight-day activity required students to keep a diary of what they did and a journal to relate how money was spent in order to purchase needs. Students were also expected to draw maps of their land to indicate the location of survival systems; the natural terrain and vegetation; compass readings; and whatever trees, bodies of water, hills, and other features they found on their plots. Among the geography activities included were the determination of latitude, longitude, and altitude; daily temperatures in July and December; major crops, and name and population of the town nearest the selected land parcels.

The simulation proved to be highly motivating. Students were given a "hands on" experience which provided an element of independence, creativity, and responsibility in relation to basic economic concepts.

CHAPTER FOUR

Teaching Practical Economics to Meet the Needs of Low-Income Students . . . and Their Parents

Raymond J. Long
New Dorp High School, Staten Island, New York

Introduction

Economics has been required for graduation from high schools in New York City since 1918. College-bound students are given the traditional one-semester course, most often in their junior or senior year. Practical economics is presented to "general" students, those who will enter the world of work immediately following high school graduation. Indeed, many of the latter already hold full- or part-time jobs.

New Dorp High School is small, predominantly white, and low to middle income. It is located in a residential section of the borough of Staten Island (Richmond). Most of the parents of our three thousand students own their own homes and are beset by all the problems associated with home ownership: mortgages, rising taxes and energy bills, on top of the usual maintenance demands. They are affected, too, by general cost-of-living increases for the basic necessities including food, clothing, and transportation.

As a point of interest, in recent years economics seemed to be a high-priority course among college students throughout the United States, but in New York City, it has been in danger of being dropped as a requirement for graduation from the public high schools.

Goals

A course in high school economics gives social studies teachers their only *formal* opportunity for imparting skills such as budgeting and comparison shopping, both of which are considered essential for surviving economically in communities with high unemployment and rising living costs. As I shall develop later in this report, the course in New Dorp High School has a unique feature: it is taught in a way designed to reach the students' parents so that they, too, will be better able to cope with the myriad problems they encounter in their everyday lives.

In planning the course, I first identified the special needs and problems of the economically poor, the slow learners, the underachievers, and the poor readers. It is estimated that 25 to 35 percent of all students in "suburban" communities like mine can be classified as slow learners (50 percent in urban areas!). I also gave special attention to career education, stressing a practical approach, the value of using sound economic practices now, and the importance of preparing for getting a job (or a better one) in the immediate future. As I organized the course, I was aware that Hispanic, black, and other minority students have many mostly nonacademic demands placed on their time. For them, therefore, an approach requiring out-of-school "research" is usually ineffective.

Since studies made by sociologists, psychologists, and economists show that the poor have the worst spending habits, I emphasize the importance of money management; how to get the most for one's money; how to get more out of what one needs for the least amount; how to limit wants to available resources.

Practical Economics is the last chance my students will have for a structured study of the principles of economics and the last opportunity to develop sound economic attitudes and practices in a school setting. It is hoped that students who complete the course will have learned, for example, the basic fact that *scarcity* gives rise to the need for *economizing*, that is, allocating scarce resources to meet apparently unlimited human wants; that all individuals, therefore, of necessity must decide how to allocate or use their scarce resources; that in choosing among desirable alternatives, individuals incur the *opportunity cost* of giving up the next most wanted alternative. On the practical side, it is hoped that the students will understand the difference between *money income* and *real income*; be able to figure out how much disposable or spendable income they have after payroll deductions; appreciate the effects of taxes—federal, social security, local sales—on their spending power; and become aware of the impact of inflation on fixed income—a process of particular importance when considering savings and insurance.

I emphasize the immediate utility of the course. My interest in reaching the parents of our students reinforces this practical concern. I begin the first day of class by telling my students that this course will save them and their families hundreds and perhaps even thousands of dollars! I repeatedly remind them that the course is not only for them but for their parents, and I often ask them to make special marginal notes to bring something to their parents' attention. In essence, my goals are to develop the students' critical thinking ability and their use of the tools of *economic analysis*; to enable students to understand basic economic concepts related to *scarcity and wants, supply and demand*, and the *market*—and to act accordingly.

The unique feature of the course—the attempt to improve the economic literacy and efficiency of the parents through their children—is accomplished through the readings, activities, and ideas discussed in class, many of which are related to community resources, especially the local newspaper, the *Staten Island Advance*. My academic aims go hand in hand with a conscious effort to help bridge the generation gap by improving relations between parents and their children: The family that faces economic problems together, stays together

- Children understand better why they can't have money for everything—their parents have limited funds.
- Parents better understand what their children want money for and can involve them in the total decision-making process concerning how much can be spent and for what.
- Parents appreciate that their children help them save and shop with them.

In class, students learn the best food buys for the week, for example, and bring that information home. They also encourage their parents to use discount coupons, to spot bargains, and to judge quality.

I attempt to reach the parents of my students in the following ways: (1) I remind students throughout the term to pass information along to their parents. (2) The information to be passed along is recorded in student notebooks which I grade every two or three weeks. (3) I recommend that they read the information over with their parents. (4) I also ask students to make notes in the margin on especially important items, which they are then strongly urged to bring to their parents' attention. (5) We discuss in class practical questions raised by parents and brought in by students. (6) I sometimes offer advice but only in a general way, presenting options, and leaving the final decision up to the students and their parents.

Here are some specific examples of my procedures: The unit on taxes is taken up when parents are doing their income tax returns. As a class lesson, I also help students to make out their own returns and requests for refunds of withholding taxes, if appropriate. When we study auto insurance I give the students actual figures and ask them to discuss the specific amounts of coverage with their parents, and I advise them of options (most do not know about the medical or off-premises theft riders). When we study homeowners insurance I ask those who live in apartments to inform their parents that they, too, can purchase this insurance. During parent interviews on open-school days, a number of parents remarked that their children were enthusiastic about the course and that they themselves had learned much from it. Considering the high dropout rate and the limited motivation of "general" students, these are doubly cherished signs of teaching success.

Procedures

Practical Economics is a course in personal economic problems—the student as consumer, wage earner, taxpayer, union member, and citizen in a country beset by many serious economic problems: inflation, unemployment, a rising international payments deficit, an energy crisis, and so on. As one would expect in a personal economics course, there is a heavy consumer orientation, *but the course is not primarily a course in the problems of the consumer. Rather, it is a course in economic citizenship.*

As the course title indicates, the content is practical, that is, immediately applicable to the work-a-day world, not in preparation for economic living several years hence. But the course does not ignore theory. For, as Keynes said, there is nothing so practical as a good theory. Therefore, *I introduce as much economic analysis and economic theory as the traffic will bear*. This approach is best illustrated in a topic such as buying a used car (part of the unit on consumer problems). In this instance, the unstated aim of the teacher is not solely to enable the students or their families to buy a good second-hand Volkswagen, but rather to learn how to make any major purchase: when to buy or not, when to save, how to spot a real bargain, how to recognize misleading ads and high-pressure salesmanship. Especially for general students, who are more likely to be victims of impulse buying and wasteful spending, I stress the development of decision-making skills.

I provide motivation by emphasizing subjects that interest our students: renting an apartment or buying a car, automobile insurance, clothes, records, or sports equipment. To involve students with their parents, I suggest preparing a family budget. I usually stress shopping for food as a way of getting young people and their families together "economically." Instead of telling the students to save food coupons, I help them to organize a file, labeling separate envelopes for the various food categories. I suggest they make a weekly shopping list indicating which stores have the best buys.

Students need a variety of approaches. The teacher is in constant competition with a thousand other activities, programs, and ideas. School is not the most important concern of adolescents, especially those who do not plan on higher education. To sustain interest in one's subject, not just for one super lesson or even a series of lessons, throughout the entire term takes a variety of programs and techniques.

To this end, some lessons emphasize the inquiry approach, and in others we merely read the textbook together or interpret its tables, graphs, or pictograms. To get out of the classroom, and into a more stimulating environment, I teach lessons on career education in cooperation with World of Work (WOW) at our Career Learning Center. A film lesson in the library involves yet another technique, given in still another location.

Students are made aware of community resources available to them. The public library is visited and applicable TV programs assigned and discussed in class. Students are recognized and rewarded when they bring information to my attention and we share it with the class.

It is vital to keep up with economic news. Radio, TV, and newspapers are essential but are not enough. Excellent summary materials—tables, graphs, pictograms, and charts—appear regularly in such publications as *U.S. News and World Report*, *Newsweek*, and *Business Week*. It is also essential to observe and learn from colleagues. We continually discuss our methods and evaluate each other. Materials are shared among us, and we keep up with educational and economics journals and attend teacher conferences.

Trips are popular, particularly those we make to the New York Stock Exchange or to local plants with assembly line production and automated processes. In tailoring my approach to the students' needs, I have found that extra-credit assignments are more likely to be completed than routine homework assignments drawn from the class textbook. Judging student capability is as important as determining the scope and sequence of particular topics to be covered. In the case of general students, I cannot even assume that they can read. I cannot expect much in the way of homework or test achievement from those for whom English is a second language. I try to devise realistic assignments and tests, test questions are directly related to what is most emphasized in class lessons.

Student capability should also be a prime consideration in the choice of a textbook. The text must be readable, with simple terminology, and a larger number of pictograms, graphs, and cartoons than would be chosen for college-bound students. A course for general students should heavily emphasize skills. Just getting some students to overcome their fear of (or embarrassment at) reading aloud in class is a major accomplishment and a worthy goal. In addition to reading skills, I also teach some simple mathematics, all of which seems "new" to them. I include basic work in fractions and percentages, computing the unit cost of items on a grocery shelf, determining a monthly electric bill given the rates per kilowatt-hour, and finding "true" interest rates on credit purchases. I also show how this can be done with a pocket calculator. In addition, I review basic weights and measures such as pints, quarts, and gallons, and pecks, bushels, and the like.

Students are most likely to do homework assignments that are short and for review rather than preparation for class. It is probably best to assume students will not be prepared for class. I have my students read and scan ahead, and I assign written work after we have covered the material in class. Students will also gain a sense of achievement (very important for those accustomed to failure!) since they can then do the homework easily. In the same vein, the first test should be relatively easy so that most students can pass. If we alienate them in the beginning we may never regain them.

Another technique for helping slower students gain confidence is to individualize instruction. For example, in the consumer education unit I ask students to select ads from the local newspaper for items in which they are personally interested. They usually do so. But it is a good idea to have some extra ads on hand for clothing, cars, apartments, and jobs. After the students make their selections, I ask them to read to the class what they think they should look for in the ad and what may be misleading in it. When we do the lessons on careers and jobs we look in the most recent classified section for jobs the students themselves would consider applying for.

Summary

The Association for Supervision and Curriculum Development has summed up the goals for our students for the twenty-first century: to learn the basic skills, to understand concepts, to possess competencies, to be receptive to new ideas, and to appreciate the natural environment. No high school course in New York City comes closer in helping students to achieve these worthy goals than Practical Economics. Indeed, an enthusiastic teacher, one who understands and respects his students, can achieve encouraging results. Even though many of the students may be slow learners with little motivation, it is possible for some of them to do limited projects, and even independent study. These activities are usually successful when an existing interest can be used to provide motivation. For example, students who are also working part-time or in a world-of-work or cooperative education program want to satisfy graduation requirements as soon as possible. For those students a Practical Economics project related to their job is usually carried out well. I also suggest that students do projects that can be used for other classes as well as ours. There is no reason why a book report for an economics class cannot be modified to satisfy a requirement or get extra credit in an English class.

Evidence of success will be the satisfaction expressed in remarks by students and parents, improved attendance records (remarkable for generals), and passing test grades. There has been a noticeable change in student attitudes toward social studies in general because of this course. Practical Economics is one of the most realistic courses offered to our students. It deals with real concerns of our students and their parents on their level and offers immediately recognizable benefits. It saves them worry. It meets the special needs of our special students and for me, it is one of the most rewarding subjects to teach.

Economics/Investment Mathematics

Shoshana Herzig
Moanalua High School, Honolulu, Hawaii

Introduction

The intention of this course is to show how economic laws and theories manifest themselves in the business and investment worlds. This is one course, but it is known by two titles. If the student elects to take the course for social studies credit, the transcript will read "Economics." But if the student wants to take the course for math credit, the course will be listed as "Investment Mathematics" on the transcript. However, the material covered is identical for all students.

Throughout the course, each student experiences the theoretical as well as the practical. Thus, an insight is gained into our economic system from a variety of viewpoints ranging from the all-encompassing to the most minute. To put it another way, we want our students to study both the forest and the trees.

Rationale

It is entirely possible for a student to go through years of schooling with minimal exposure to economics or business and certainly with little understanding of those situations in which the theories of economics intersect with the specifics of the business world. It is an anomaly that our students, from the early elementary grades on through high school, will experience some discussion and analysis of our political system but seem to receive little if any schooling on our economic system. The results are startling; even our most intelligent students are not really able to comprehend the significance of news events that pertain to economics and, as a result, are hard pressed to perceive cause and effect relationships.

Thus the main purpose of this course is to relate economic theory to the economic environment encountered by our students and to enable them to understand those news events that have a direct or indirect impact upon their daily lives.

Among the major goals students should attain upon completion of either Economics or Investment Mathematics are these:

- Understand the major principles of our economic system;
- Known some of the specifics of the business and investment world;

- Be able to connect daily economic and business news to the economic principles and concepts studied;
- Be able to determine how changes in the economy are inextricably linked to the business and investment worlds;
- Be able to think in terms of cause and effect relationships among the various academic disciplines;
- Appreciate the enormous importance of government policies on the economy and be able to analyze their effects;
- Learn from business people the day-to-day problems involved in running a business enterprise;
- Be able to make the calculations required for wise investment decisions;
- Be aware of the applications of economics to personal investments.

Background

Three years ago I submitted a proposal to my principal for an investment math course designed for college-bound students. As a math teacher, I had noticed that the brightest students, those who will surely become leaders in business and government, had little business background. As the discussion progressed, it became apparent that an even greater gap existed in our curriculum—these same students had very little exposure to economics.

Thus, a full year's course, Economics/Investment Math, was created. The prerequisites were successful completion of Algebra I and the recommendation of the student's math teacher. The student had the choice of taking the course for social studies or for math credit. This credit flexibility attracted a large number of students.

Experience during the past two years has shown that the best procedure to follow is to present the basic economics concepts during the first semester. The most notable proof of learning was the submission of a major essay relating to our economic system. Whenever practical, small group projects, discussions, and oral reports were presented. This procedure was continued into the second semester when major emphasis was given to business and investments. I found that this organizational structure worked well, since the students had, in the first semester, acquired the economics background necessary to make reasoned judgments concerning savings, the stock and bond market, and real estate investment. However, I have found through experience that the subject in which theory and practice converge most obviously is the study of federal taxes.

Provided with a fairly good background, each student went out and conducted an interview with a member of the business community or a government agency. This proved to be a highly successful activity.

Through activities such as these, in addition to winning the Golden Goose Award sponsored by Wheelabrator-Fry, Inc., the reputation of the course was enhanced as my students told their friends about what they were doing. As one of my students said, "I told my friends to take the course, but only the smart ones."

INTERDISCIPLINARY LINKS

Business — **Economics**

Price fluctuations and interest rates of corporate bonds and Treasury securities ← Monetary policy of the Federal Reserve

Mortgage rates and availability of mortgage money ← Monetary policy of the Federal Reserve

Sociology — **Economics**

Humanistic philosophy of the 1960s → Changes in federal budget priorities

Demands of minorities → Changes in federal budget priorities

Changes in attitudes toward work ethic → Productivity affected

Changes in attitudes toward work ethic → Exports affected

Politics — **Economics**

Pressure groups and lobbyists → Changes in tax policy

Pressure groups and lobbyists → Changes in budget priorities

Pressure groups and lobbyists → Changes in minimum wage

Pressure groups and lobbyists → Changes in energy policies

Pressure groups and lobbyists → Changes in almost all areas of economics

Science — **Economics**

Environmental concerns → Growth policies questioned

Environmental concerns → Pollution controls change product costs

Methodology and Activities

The following are some of the activities expected of my students during the Economics/Investment Math Course. Using the residential and condominium multiple listing references, students study all the financial data on housing in the school's sending district. Two textbooks, one on economics and the other on investment math, are assigned as well as a variety of current magazines and newspapers. Each student is expected to have a calculator available. Such data as price quotations on Treasury bills, New York Stock Exchange stock prices, and over-the-counter indexes as well as the Hawaii Economics Project materials are used. I indicated some of the major assignments, such as a comprehensive essay, in-depth interviews, and oral reports, earlier in this report.

Interdisciplinary Links

During the full year's course, I constantly emphasize that the discipline of economics is closely related to many other subjects. In effect, I attempt to show my students that we do not live in a world in which economic issues are isolated from the real world. The accompanying chart serves as a reference point for relating economics to other subjects.

Evaluation Procedures

Among the several evaluation strategies I have used are the following: pre- and post-testing using the Joint Council on Economic Education *Test of Economic Understanding*, a major essay on "What Private Enterprise Means to Me," preparation of a short research paper on the energy problem, presentation of oral reports, completion of 1040A and 1040 tax returns, and teacher-prepared examinations on all topics studied.

In addition, I have had several significant subjective indications that the course has been very successful. One of my students was awarded the top prize in the Central District for the essay, "What Private Enterprise Means to Me." Another of my students was among the twenty-one finalists in the competition, and our school had the largest number of entries in the contest—eleven. From a personal point of view, I was more than pleased to have received the news that I was selected as the Economics Teacher of the Year at the annual meeting of the Hawaii Joint Council on Economic Education.

Teaching Economic Concepts through the "History of Western Civilization" Course

William Sigelakis and Lawrence Abrams
John Dewey High School, Brooklyn, New York

Introduction

The study of economics is difficult for many high school students because it is an entirely new field of learning for them. Being confronted with new reasoning skills, terminology, definitions, and concepts is often an intimidating experience to students. We sought to alleviate this problem by giving younger high school students a grounding in economic concepts and related terminology before exposing them to a more formal and traditional high school course in economics. We did this by integrating economics into our school's Western Civilization curriculum.

The Setting

Our school is unusual in several ways. It has a eight-hour day for students and staff. Each student is scheduled for both formal classes and independent study. There are five cycles a year. Between each cycle the entire school is reprogrammed according to student requests and needs. Individual courses are made up of one cycle or clusters of cycles as needed. In each subject, certain general topics of study are mandated. These mandates may be satisfied by selection of courses from a variety offered in each mandated area. In addition, a portion of a student's total high school program is set aside for electives.

As part of the social studies requirement, students must take three cycles (three-fifths of a year) of Western Civilization. One of the six courses offered in Western Civilization is The Age of Industrialism, a study of the impact of industrialization on the Western world.

The course was originally designed as a study of the Industrial Revolution in England. After teaching it once we realized that there were problems with it. (1) Since the topic was somewhat removed from student experience, the interest level was low. (2) The economic concepts in the course were vague. (3) Available materials were often outdated. (4) The content of the course was not sufficiently applicable to today's world. (5) The course did not adequately develop cognitive and affective skills which would be carried beyond the classroom. Consequently, we redesigned the course so that it would include fundamental economic theories of industrial society taught in a stimulating way and, at the same time, preserve the essentials of the historical background of industrial England.

Goals:

Before starting to redesign the course, we outlined the following goals:

1. To design and implement a minicourse that integrates basic economic concepts into the established tenth-grade Western Civilization curriculum;
2. To provide colleagues with a range of teaching strategies (inquiry, small group processes, debates, simulation games, independent study, role-plays, multimedia approaches) designed to stimulate student interest in classic economic concepts;
3. To provide high school students with a foundation for their future required study of economics;
4. To increase student interest in an elective program in economics;
5. To provide students with learning experiences that develop their skills in economic problem-solving and analytical thinking;
6. To have students analyze and evaluate economic theories and alternative economic systems (socialism, communism) that have had an impact on Western civilization;
7. To have students appreciate the intricacies of fundamental economic concepts applicable in a free industrial society, e.g., supply and demand, self-interest, profit motive, free enterprise, invisible hand;
8. To have students identify, analyze, and evaluate the ideas of important economic theorists (laissez-faire capitalism, utopian socialism, democratic socialism, and Marxism);
9. To have students evaluate the strengths and limitations of industrial growth on the economies of newly developing nations;
10. To help students understand the overt and subtle impact that industrialization has had on their behavior;
11. To have students appreciate the interrelationships among economic, social, and historical factors in a society.

Steps:

In attempting to achieve our goals, we went through the following steps:

1. We began by isolating those economic concepts we believed should be

at the core of the course. We then redesigned the course of study, adding strategy suggestions, to reflect the general and specific goals we had isolated (see Appendix A of the full report, available from the Vernon R. Alden Library, Ohio University, Athens, Ohio).

2. While planning a series of lessons and learning activities, we surveyed, selected, and created appropriate materials. We have enclosed in Appendix B only those lessons which bear specifically upon economic concepts and values, together with student materials used in each lesson. We also freely used the homework and "resource center" assignments, which are generally available in our department (see Appendix C).
3. We administered a pretest of economic concepts and evaluated the results (see Appendix D).
4. We evaluated student outcomes in the standard ways: midcycle and final examinations, assessment of student performance in class, evaluation of student individual and group projects (see Appendix E).

NOTE: As an alternative to the lessons on the development of the market economy and industrialization in England we have included materials for a debate. These are contained in Appendix C.

Organization

As indicated, we organized our course in Western Civilization to include a foundation in basic economic concepts by (1) isolating economic concepts, (2) planning a series of lessons and learning activities, and (3) developing a series of homework and resource center assignments. For the purposes of this report, one example which links the three components of our program is given.

LESSON 4. HOW DOES A NATION INDUSTRIALIZE?

Objectives:

1. To analyze raw data of a not yet industrialized nation;
2. To solve the need for increased food production as a part of industrial development;
3. To appreciate the difficulties in planning for a country's industrial growth;
4. To apply the equation, INDUSTRIALIZATION = LAND + LABOR + CAPITAL + IDEAS to the not yet industrialized nation.

Strategy:

Students are given data sheets on the fictitious nation of Fenwick (remarkably similar to England prior to the Industrial Revolution). Students are to act as economic advisers to solve various problems associated with Fenwick.

CAN FENWICKIANS BECOME MORE PROSPEROUS?

You are a resident of the island nation of the Duchy of Grand Fenwick. You are considered one of its brightest residents and have publicly stated that you think Grand Fenwick should become more prosperous and assume its rightful role as a world leader. As a result, the chief political leader of Grand Fenwick, the Grand Duke Turgid Mediocritus, has placed you on a committee to try to outline a plan to make your country more productive. However, several other committees are also working on this problem. If your committee fails to present the best solution, the Grand Duke (who is noted for his impatience and idiosyncracies) will have you ground up into fertilizer and scattered over the fields of Grand Fenwick.

The following data about Grand Fenwick have been gathered to help you:

1. *Geography:* Grand Fenwick is an island which is separated from its neighbors on the mainland. Size: approximately 95,000 square miles (as big as California).
2. *Topography:* Grand Fenwick's land contains many good harbors, many navigable rivers, some fertile plains, some low mountains and valleys.
3. *Climate:* Mild; located in the temperate zone and warmed somewhat by the nearby Gulf Stream. Average rainfall: 41 inches (about the same as New York City).
4. *Population:* 18,508,000 (males: 9,508,000; females: 9,000,000).
5. *Population Density* (average number of people per square mile): Rural: 15.2; city: 291.6.
6. *Occupations:* Major: farming, sheepherding, dairy farming, trade; minor: small manufacturing, crafts, cottage industries, finance, academics, government work.
7. *Natural Resources:* Significant amounts of coal and iron ore (basic ingredients for steel), much of which is unmined.
8. *Trade:* Exports: goods made by craftspeople, some cloth, rifles, wheat; imports: gold, silver, tobacco, some cotton, sugar.
9. *Income Distribution:* 10 percent very wealthy, own 92 percent of the nation's wealth; 90 percent just managing to get by. A few unemployed.
10. *Economy:* 80 percent agriculture; 10 percent handicrafts, homemade cloth, etc.; 10 percent small manufactured goods produced in factories located in cities.

PROBLEMS TO BE SOLVED (your tasks)

Deal with each of the problems listed below as assigned. Record the problem, your solution, and the reasons for your solution in your notes.

1. *Problem:* Many Fenwickians have a difficult time getting enough food to eat. Develop a plan for solving this problem.

Solution?

Reasons?

2. *Problem:* Grand Fenwick's economy presently has 80 percent of its people working in agricultural production; 10 percent working in commerce (trade); and 10 percent in small factories and crafts. How might you like those figures to change if Grand Fenwick is to become more prosperous?

Solution?

Reasons?

3. "Economic change changes all of society."
Problem: Assuming the above statement to be true, how might these changes you decided upon to solve Problem 2 affect each of the following in Grand Fenwick? Urban population density, use of natural resources, occupations, imports and exports.

HOMEWORK ASSIGNMENT SHEET—Lesson 4

Readings, as listed.

1. Explain how each of the following factors of human origin helped promote the Industrial Revolution in England: (a) favorable government attitude, (b) availability of capital, (c) large labor supply.
2. Explain the role that nature played in promoting the Industrial Revolution.
3. Was nature or people more important in starting the Industrial Revolution in England? Give reasons for your answer.
4. Assume that you are the leader of a poor nation today that is anxious to industrialize. Describe 5 essential requirements for industrial development that would be needed to accomplish your task.

Summary of Course

We organized our course by listing twenty key economic concepts that we wanted to include in the program. As suggested above, each concept was presented and discussed, a series of lessons and activities was developed, and homework and resource center assignments were indicated. Essentially, the course focused on the impact of industrialization on people. Students analyzed both the benefits and the problems that developed out of an accelerated industrial economy. The course emphasized a sociological and economic analysis of industrialization and integrated these disciplines into the historical developments we call the Industrial Revolution. The development of the program was organized thematically rather than chronologically.

What Makes Johnny Run?

Maxine M. Miller
Northside High School, Fort Smith, Arkansas

Background

Planning for the unit began after I had heard James Fixx, author of *The Complete Guide to Running*, discuss the impact of the running shoe on the economy when he participated in a panel discussion on a local educational program. While the title began to take shape in my mind, I was reminded of articles I had read on similar topics, such as "Why Johnny Can't Read."

Using a hypothetical person as the protagonist, I was able to develop a three-week unit designed to integrate economic concepts into my courses in sociology and psychology. Johnny, a composite of all students attending Northside High School, was used to fill roles as a worker, consumer, and citizen in the various activities of the unit. Before the project was completed, over 125 students had taken part in "What Makes Johnny Run?" since our students elect sociology in the first semester and psychology in the second term. My students were mainly seniors with a sprinkling of juniors, but before we completed our work, the seniors and juniors taught the *Economy Game* to a class of sophomores.

The motivating question used for the unit generated immediate and constant interest. It seemed that Johnny became part of our classroom—an imaginary friend who was always with us. As we continued the unit, the answer to our question took on dimensions and projections we had not anticipated. Everywhere we turned, it seemed that running was the "in" thing. Fortunately, also, our choice of a consumer product, a shoe, could not have generated more interest with the students. They felt that the running shoe was their "thing."

In psychology, we learned that as humans we not only have emotional needs to be satisfied by others, but that we associate with others for the fulfillment of economic needs (reasons), being dependent upon others for food, clothing, and protection. Interdependence is high among people because individuals tend to concentrate on specific tasks. Furthermore, Johnny not only finds much of his identity in work, but he is dependent upon the goods and services produced by others.

Teaching Guide

I organized the unit by developing a teaching guide (Exhibit 1) in which I listed the choices I thought my students would have to make, the purposes and procedures they were to follow in making decisions, and the economic concepts to be stressed throughout the unit.

Purposes

My objectives in organizing "What Makes Johnny Run?" as a unit of study to be included in our sociology and psychology classes were:

1. To create an atmosphere and to select a topic that would encourage the exploration and identification of choices from a psychological approach through the utilization of a hypothetical person, Johnny, in the role of a worker as we approach the 1980s;
2. To evaluate Johnny's role as a status seeker and to determine its impact on the economy;
3. To select an exciting, currently popular, consumer product; to track it through the economic system; and to use the product to lead the students into an awareness of balance and imbalance in the American economy;
4. To offer students an opportunity to find effective materials, to teach, and to discover new consumer products in their own state; and
5. To provide an opportunity for increased awareness and participation in the citizen's role in the community.

Organization of the Unit

The unit was organized into thirteen subsections which were listed under three divisions: (1) psychological choices and the economic system in their relation to Johnny as a worker in the decision-making process and as status-seeker whose behavior reflects the strength of current fads; (2) consumer choice, using the sneaker as a case study to analyze the economic system; and (3) the citizen's exercise of choice-making powers

For the purposes of this report, I have included a brief example to illustrate organization and content.

CONSUMER CHOICE: THE DRIVING FORCE OF A MARKET ECONOMY

We began by indicating that Johnny the consumer is in many ways the most important person in the free enterprise system. Without him, there would be no need for production or distribution of the shoe or any other consumer item. To emphasize this key point, we used a teaching kit on consumer choice. We recommend this strategy as it allows shortcuts to be taken.

At the end of this phase of our study, students were better able to help themselves and Johnny to:

1. State his consumer role in the marketplace;
2. Evaluate Johnny's importance as a consumer in the marketplace;
3. Determine and list factors that influence Johnny's choices as a consumer;

EXHIBIT 1:
TEACHING GUIDE: "WHAT MAKES JOHNNY RUN?"

	Choices in	Purposes or Procedure	Economic Concept
1.	Values Attitudes Decision making	Exploring by taking values and personality inventory	Choice Opportunity cost
2.	Vocation Commitment to vocation	Determining personal goals and developing a philosophy of life	Increasing productivity
3.	Problem-solving	Analyzing approaches: systematic, intuitive, perceptive, receptive	Social decision making Collective power Interdependence
4.	Job satisfaction or higher pay	Bolles's self-discovery inventory Finding one's skills	Trade-offs
5.	Contracts at work	Considering interdependence vs. individualism	Law of supply and demand at work in the labor market
6.	Alternatives to job stress	Exploring alternatives to fit needs and health	Quality of life of U.S. vs. gross national product
7.	Commitment to self-fitness	Sorting our what's really one's own choices	Priorities benefit industry

8.	Workplace Boss	Analyzing choices based on fitting in with the corporation	Atmosphere determines productivity within corporations
9.	Status seeker	Study effect on economy	Scarcity
10.	Pre-test	Determining EQ (Economic Quotient)	Economic literacy test
11.	A consumer product—the sport shoe	Adapting study materials obtained from the Converse Shoe Company	Production Service Distribution systems
12.	Consumer	Adapting study materials obtained from an Arkansas-based company—Ambi	Consumer's role A driving force in the American Economy
13.	System of exchange Post-test	Improving EQ Important outcome	Economic literacy
14.	As a citizen	Consulting an elected city director	Organized government essential to economic order and growth
15.	A few actions as a citizen	Voicing opinions Registering to vote Voting in primary election Circulating a petition	Voice and vote essential to the free enterprise system

4. Recognize that in a marketplace different people have different needs, wants, desires, goals, and values;
5. Define, discuss, and give examples of opportunity costs and trade-offs;
6. Define, discuss, and give examples of societal choices, opportunity costs, and trade-offs;
7. Explain how supply and demand help determine the price of a product.

As the next step, the students took the following series of tests drawn from the study guide: Making Your Choice, Multiple Choice on Completing Sentences; True or False Statements; Circle the Word Puzzle; and a Crossword Puzzle. All these were interesting and enjoyable to our students.

As we studied Johnny's consumer choices, one of the students who works at a local sporting goods store brought in a leaflet on Ambi, a training/casual shoe made in Arkansas. Subsequently, we wrote to the manufacturer and used that brand of shoe as a case study to illustrate the manufacture of a new product in Arkansas.

Other parts of this section included: What Is a Market? Choice and Scarcity; Trade-offs; Choices for Companies; Values Determine Choices; Finding the Price; Supply and Demand; Competition; The Cost of Responding to Consumers; The Role of Profits in Responding to Consumer Choice; and Productivity.

Evaluation

We began with the question, What is your EQ? That question prompted another: What *is* EQ? We responded with EQ = Economic Quotient. We then had our students take the new Joint Council on Economic Education *Tests of Economic Literacy*. On the pretest, the student scores ranged from a high of 85 percent to a low of 26 percent. The low scores were not surprising since they were attained by students who normally score below average on any test. On the post-test, the highest score was 96 percent. In most cases, the students were pleased to increase their EQ. Two or three scored lower in the post-test, but considering that there were several intervening variables, this was not unusual.

We also had subjective data to indicate that the project was successful. The sociology students I had taught during the first semester asked to become part of the project. Subsequently, near the end of the second semester, just as they were completing a study of the economy and the government, the information from the shoe company arrived. These students were eager to use the material to analyze the American economy. We had an extended period which provided an opportunity for the students to work in small groups. The additional assignments they completed were used later by both psychology and sociology students.

Good Ideas in Brief: High School

DOROTHY ANN BARRETT, of *West High School, Mankato, Minnesota,* developed a simulation entitled, "Steamboats Get Tracked On." The sixteen-day activity was designed to dramatize the costs and benefits of technological change through the utilization of an historical event: the replacement of steamboats by railroads for volume transportation in the Mankato, Minnesota, area. The simulation is multidisciplinary and has an historical setting and political and economic applications. In this case, political factors dominated the decision-making process related to a market question. As the simulation is developed, students role-play a five-member city council including the mayor. After hearing arguments and testimony from various vested interest groups, the council decides whether the railroad should be permitted to come into Mankato. The special-interest groups include the railroad company and their lawyer; the steamboat companies and their legal representatives; people representing big business, who are looking for markets and travel opportunities; local businesspeople, who are threatened by possible competition; farmers, who are looking for wider markets for their grains; preservationists, who strongly advocate the continuance of the status quo regardless of private and external advantage; and newspaper representatives. A large amount of supportive materials is included in the simulation, among which are worksheets, recommended reading lists, day-by-day lesson plans, a glossary of economic terms, supply-demand analysis, the historical setting and data sheets, and profiles describing the roles of all participants in the activity. The activity, which is integrated into the tenth-grade American history program, provides a model that could be adapted to any community that has experienced the economic impact of changes in transportation mode or other technological innovations.

BETTY GURKE, a fifth-grade teacher in *Gould School, North Caldwell, New Jersey,* and THOMAS W. MULLANE, a twelfth-grade social studies teacher in *West Essex High School, North Caldwell, New Jersey,* originated a program in response to a grant given by the state of New Jersey to teach economics and corporate structure to a group of fifth graders who were identified as intellectually gifted. Instruction was given not only by the teacher, by using community resource people, films, and field trips, but also by seniors attending the local high school. After studying the legal issues and requirements related to the foundation of a corporation, the fifth graders formed their own corporation, *General Creations.* Officers were elected, by-laws were written, and capital was raised by writing a prospectus, issuing promissory notes, and selling stocks. Candles and pot holders were manufactured, and marketing strategies and advertising were discussed and put into action. The high school seniors gave a series of lessons linking the corporation's manufacturing to economic concepts and the stock market by using a variety of teaching approaches, including debates, role playing, AV materials, and small group discussions. Among the terms and concepts presented by the twelfth graders were business organization; stocks, bonds, dividends, and interest; factors of production, and money and banking. An important outcome of the project in addition to the acquisition of knowledge about corporate structure, the stock market, and other economic terms, was that the fifth graders learned how to think critically in real situations that require problem-solving action.

SUSAN R. JACOBSON, of *Male High School, Louisville, Kentucky*, sensing that her students questioned the necessity and legitimacy of profit in a capitalistic system, developed a unit called "Profit or Perish: The Role of Profit in a Capitalistic Economic System." A comparative systems approach was used. An investigation was undertaken of a barter-type economy, a command system, and a market-oriented, i.e., capitalistic system. Account was taken of differing levels of technological development and methods of distribution of goods and of conflicts likely to arise in each system, particularly those resulting from differing expectations concerning the role of the individual. Opposing and contradictory views were presented and analyzed. The unit was developed as an interdisciplinary project for students in grades 9 through 12, and can be used in history, anthropology, social studies, economics, and special-education classes. Among the instructional materials included in the project a survey form for assessing students' attitudes on profit; statements of behavioral objectives; lesson plans; worksheets and related questions and activities; readings from various disciplines including anthropology; and four outstanding conflict dilemmas. An interesting highlight of the unit is its emphasis on basic skills. A "Speedway Board" is used to have students work on the pronunciation, spelling, definition, and usage of vocabulary through a motivational "chance" system. Activities especially interesting to students, e.g., hiring a dance band for a school function, are used to encourage students to analyze and discuss economic concepts.

KAYE L. DARBY, of *David Douglas High School, Portland, Oregon*, developed a course designed to introduce students to a series of specific environmental problems primarily oriented to the Pacific Northwest and the local Portland area. Various groups involved with environmental issues were examined so that the students might gain a better understanding of the economic, social, and political significance of the arguments of each special-interest group. Throughout the eighteen-week program, students were challenged to utilize their acquired skills in critical thinking to arrive at the best possible practical solutions to the environmental problems studied. Among the major topics presented and discussed were the course introduction; land use management problems in Oregon; urban pollution problems, including those related to solid waste disposal, air quality and transportation; energy problems; population; growth vs. no growth; politics and the environment; and values and value priorities.

A variety of teaching and learning materials is contained in the program, which includes a forest land management opinion poll, exceptionally well-developed simulations in which students role play membership in concerned interest groups, and a series of related thought-provoking activities.

BETTY O. ANDERSON, of *Deep Creek High School, Chesapeake, Virginia,* upon determining that her business students in grades 10–12 did not have a working knowledge of what business organizations were all about, developed a packet of independent units of study on "Types of Business Organizations." Each packet included student/teacher guidelines for each activity, techniques and purposes in directing activities, and student/teacher evaluating procedures and instruments. In addition, a complete slide presentation, individualized projects and tests, and a teacher's scoring key are included. The unit rationale was that "the student, upon entering the business world, must seek employment in or operate the type of organization that best suits his/her personal needs. Once employed by self or others, he/she must identify and select business procedures advantageous to this organization. Too, as a consumer and citizen, the student must utilize the services and products of these organizations." Except as noted, all student activities, learning guides, and information are original. Other business teachers have availed themselves of the unit because of its outstanding and creative activities and organization.

SALLY BLACKMER, of *Honeoye Central School, Honeoye, New York,* developed an instructional unit called "Gross National Product: An Economic Education Unit of Instruction for Ninth and Tenth Grades." The purpose of the module is to develop an understanding of basic concepts relating to GNP and to apply them to more abstract situations. The focus of the unit is on deriving the concept of GNP and comparing past annual measures of economic activity by using current dollars. A sequential program is presented, including lesson outlines for running a business, that illustrate some basic concepts associated with GNP; a picture lesson for deriving the meaning of GNP; a research project and game; and a series of objective questions for evaluating student learning. The first group selected to receive instruction from the module was the lowest-achieving group of ninth-graders. The following year, all tenth-grade social studies students used the unit. It was found that the original group seemed to retain the information developed in the unit much better than they did other units taught to them in their ninth-grade social studies class. It was also found that even though the general achievement of the students was below average, they showed a higher level of understanding of GNP concepts and abstractions than did the rest of the students, who had studied the topic in a less extensive unit. The module has been reprinted and circulated by the Genesee Region Council on Economic Education (N.Y.) for teachers who wish to integrate economic concepts into their classroom.

MICHAEL POOLEON and **HELEN MONTGOMERY** of *Bellingham High School, Bellingham, Washington,* created a simulation designed to model international economic relationships in the contemporary world. The simulation, "Wealth of Nations," is the final activity of a required ninth-grade course called "Social Studies Concepts," which includes the essential concepts of geography and economics. "Wealth of Nations" is a two-week activity and requires all students to participate, using information and concepts they learned during the preceding ten weeks of class. In the simulation, the classroom becomes a world with its own countries and resources. The students are divided into a maximum of six groups. The members of each group are required to develop an imaginary country, following an outline which guides them in establishing their nation. Each group gives a name to its nation, makes a map, lists resources and products, and generally makes decisions on the basis of the geographic facts they have designed for their country. Each country has its own distinctive set of resources and a desire to be self-sufficient in order to provide its population with the necessities of life. After completing the basic description of their countries, the students determine the wealth of each nation in preparation for a series of trading rounds which are conducted to achieve the desired economic goals of each country. The trading rounds start with the exchange of resources, since none is duplicated among the countries. Money values are assigned to each of the resources, and exchange rates are established to facilitate international trade. At the conclusion of the training rounds, students then determine the relative economic wealth of their countries.

PATRICIA L. SHELTON, of *Pleasant Hill School, Marion, Ohio* introduced a unit entitled "Distribution of Income and the Role of Profits in the Market System" into her consumer economics classes. The two- to four-week unit can also be included in high school classes in marketing, sociology, and current affairs. If used in consumer economics, it would be the third topic of a sequence that begins with an introduction (scarcity, opportunity costs and decision-making, and comparative economic systems) followed by a unit covering supply and demand and the pricing system in a market economy. The new unit serves to introduce macroeconomics and is organized to lead into a unit on the role of capital, interest, and wage determination in a market system. In addition, in consumer problems classes, the role of government, the federal reserve system, and international trade are included. The major objectives of the unit are to present the meaning of economic terms and concepts, to develop a framework or model for decision making through which students can logically analyze contemporary economic problems, and to help students identify their own influences on the system and understand how the system influences them. Among the many materials included in the full report were learning activities, a glossary of economic terminology studies, a list of behavioral objectives, worksheets and related activities including crossword puzzles and graphs, simulations, selected readings, a post-test, and a complete bibliography.

CHAPTER FIVE

Money and Banking Forever

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Introduction

In the winter of 1974, I found myself in a new location, among unfamiliar faces, and about to start my teaching career. Teaching principles of economics while in graduate school and soliciting the advice of seasoned professors had not prepared me for the lecturing doldrums which occurred halfway through my first course on money and banking. Students began asking me what monetary theory had to do with anything in the "real world" and I began asking myself what my previous objection had been to injecting a more institutional emphasis in this course.

In retrospect, a theoretical as opposed to an institutional emphasis was not the error. What was missing in my course was some display of applicability or "relevance," some way of making the St. Louis multiplier exciting to the average college student, and some way of making money and banking a memorable educational experience—one that would stay with students after graduation and be of benefit to them in their day-to-day lives. The task of designing a course that fulfills these goals and at the same time teaches economic theory was indeed a challenge.

The problem is that the material contained in most money and banking courses can be boring to many students, particularly those not inclined to appreciate the esthetic qualities of T–accounts or the mathematical elegance of simultaneous equation solutions. One really bad lecture, with the time and potential for others, just adds to the tedium unless students see the necessity for the drier aspects of theory. The Federal Open Market Committee (FOMC) simulation, as an integral part of the course, is one way of insuring that students see the necessity of theory and the exciting role it plays in policy-making situations.

The FOMC Simulation

Several factors are important when analyzing the effect of the FOMC simulation on student learning. First, the FOMC simulation is one-quarter of the course and of the student's grade. Second, the simulation represents a second generation in simulation design. Third, the simulation reinforces and draws upon what students learn in the rest of the course. The effect of the FOMC simulation on student learning is examined with both soft and hard statistical evidence.

Students were required to purchase two books for the course: Simpson's *Money and Economic Analysis* and Bartlett and Amsler's *A Wall Street Journal Journal*. The textbook is theoretically oriented. The *WSJ Journal* serves as a workbook and analytical guide for the *Wall Street Journal*, to which students are required to subscribe.

The course is outlined in a very traditional manner except that after examining the GNP accounts briefly, students are introduced to a very simple Keynesian model. The early introduction of a macro model is done for two reasons. First, intermediate macro is a prerequisite for money and banking. To maintain continuity, it is important to establish the link between macroeconomics and monetary theory early in the course. Second, the early use of even a very simple macro model is a prerequisite for the FOMC simulation. Students need some analytical framework to start with and to build upon. Throughout the course the emphasis in lectures is theoretical.

Students are tested on this material over the course of the semester with minitests. These are forty-minute tests on material discussed in the book and developed in class. Students are allowed to drop their lowest grade of five on the minitest. At the end of the semester, students are tested again but only over the specific material on the minitest. Thus, their final exam is a modification of questions previously asked. This traditional approach to the material and testing of the students' understanding of it account for 50 percent of their grade.

The remaining portion of a student's grade is determined either directly or indirectly by the FOMC simulation. There are four or five FOMC simulations throughout the semester, depending on the schedule. Students are required to participate in four. They are graded on five things: demeanor, accuracy of facts, plausibility of analysis, adequacy of policy suggestions, and responses. A simple grading sheet facilitates the grading procedure. At the end of the semester each student must write a position paper which mirrors much of the simulation, giving students a second chance to learn the material. It is premature to discuss this aspect of the course at this time, and an elaboration on these experiences will follow in due course.

The Design of the FOMC Simulation

As can be surmised from the time alloted the simulation and the effort required for a position paper, the FOMC simulation plays a key role in affecting student learning. In essence it serves as a bridge between the economic theory they are learning in class and from personal study and the use of theory in the "real world." Unlike most simulations used in the teaching of economics, the FOMC simulation is synergistic; that is, it is specifically designed to incorporate three different simulation techniques and to build upon the cumulative nature of the learning process as outlined by Bloom in his taxonomy of educational objectives. A rationale for this design is developed after reviewing the inconclusive findings of traditional simulations and adapting Bloom's taxonomy to fit the nuances of economic theory.

I spent four years developing this approach, and much of my work was supported by the Denison Simulation Center funded by the Lilly Endowment, Incorporated. The center provided assistants, released time, and travel money. The work was presented in various stages of development at several conferences and has been published. In addition, a former student, Christine E. Amsler, funded by the center, worked closely with me on these projects. Denison University has been very supportive of my research efforts in developing effective teaching techniques.

Goals of the FOMC Simulation

The overall purpose of the FOMC simulation is to reinforce student's understanding of monetary theory and financial institutions and to illustrate how monetary policy in the United States is made and executed. In specific terms, the three main objectives of the FOMC simulation are to:

- Describe the purposes and functions of the Federal Reserve system and to familiarize students with basic economic information available in public media;
- Illustrate the role macroeconomic theory plays in policymaking and to give students an opportunity to use the models they learned in class;
- Have students apply their fundamental understanding of facts and models to judge for themselves the relative merits of policy actions reported in the press.

Each of these objectives parallels a stage in the learning process and an aspect of the policymaking environment as discussed in the rationale. The FOMC is synergistic in that these objectives are met by simultaneously using the simulation techniques of case study, model-building, and role-playing.

The Classroom Experience of the FOMC Simulation

In brief, the FOMC simulation is an enactment of the FOMC meetings actually held in Washington. Eleven to forty-four students can participate at each of the triweekly meetings. Each session lasts for an hour. Students prepare for the simulation by clipping articles from the most recent issues of the *Wall Street Journal*. The workbook helps them to recognize which articles are important and provides them with tables for recording information as well as with charts on which to plot the entries so that trends can be observed and followed. Space is provided for pasting the articles in for future reference in the simulation. Thus all the students have up-to-date and identical pieces of information. The common ground facilitates discussion.

Students also prepare for the simulation by researching their assigned roles as committee or staff members. They analyze the facts collected from the *Journal* within the theoretical frameworks learned in class and from the political perspective of the committee member. As the course progresses the analytical preparation is expected to become more sophisticated.

I prepared for class by updating my own *WSJ Journal* and by filling out the grading sheets. I paid particular attention to releases of the chairman of the Federal Reserve Board, since that was my role.

At each meeting, different members of the committee are responsible for different sectors of the economy, as outlined in the *WSJ Journal*. Members of the committee or their staffs must brief the entire committee on the current economic situation within their sector, give their analysis of these developments, predict future trends, and suggest policy courses. When all ten of the three- to five-minute presentations are complete, discussion takes place until a consensus for policy action is reached. The views of the chairman are always made known.

The atmosphere for these meetings is set in several ways. First, the room is set up for a conference. If a large conference table is not available, members of the FOMC sit in an inner ring of chairs provided with name plates. Staff members are seated in an outer circle near their assigned committee member, who acts as the group's head in large classes. The mood of gravity is further enhanced by requiring students to wear businesslike attire, to address the committee formally from a podium, and to stay within assigned roles.

A Final Effort

The debate between particular committee members, in keeping with their assigned roles, can be time consuming, and not all students are permitted to engage in the discussion. Thus, at the end of the semester after experiencing at least four FOMC simulations, students must write a position paper of no more than fifteen pages. The paper is divided into three sections which parallel the simulation presentations. Unlike their earlier presentations, however, students are responsible for every sector in the economy. Information for the first section, which reviews the current economic situation, is taken from the *WSJ Journal*. Their reviews focus on the economic events of the last quarter as compared to the same quarter of the previous year. In the next section of the paper, this information is analyzed within a macroeconomic model. The degree of difficulty or sophistication in their analysis is limited by the five pages alloted for this section. Finally, policy recommendations based upon their analyses are made in the last section. Here students are encouraged to consider all the alternatives and state why some are out of the question. So the position paper offers students a final chance to draw the course together, to bridge the gap between fact and theory, and to make economics come alive.

Course Summary

Four years of work went into designing a course for the fall of 1977. Half of the course was in the traditional lecture format and the other half rested heavily upon the FOMC simulations. Students were always given two opportunities to learn the material, allowed to drop one minitest and FOMC simulation, and given several opportunities, verbally and in writing, to express what they had learned and apply it.

The evidence shows that the simulation was crucial to answering the "relevance" question, creating excitement for the material, and providing students with an economic framework within which to put the facts reported by Walter Cronkite, *Newsweek*, or the *Wall Street Journal* after they leave Denison.

Evaluation

There is ample evidence to substantiate the claim that money and banking as it is currently taught at Denison University meets the stated objectives of the course. In addition, there is ample evidence that the FOMC simulation is effective in attaining its specific goals and thus fulfills its role within the course structure.

A rigorous experiment was conducted during the first semesters of 1976–77 and 1977–78. Both experiments used a pre- and post-test procedure to measure student learning over the semester. The test was designed to measure student understanding of facts, theory, and policy issues surrounding the making of monetary policy. The more traditional TUCE and TUE tests are inappropriate instruments for advanced undergraduate courses and particularly for money and banking courses. The evaluation of the FOMC simulation, which controlled for such factors as age, sex, major, etc., showed that the simulation was an important determinant of student understanding. The simulation's greatest impact was on theoretical issues. The evaluation also showed that students follow Bloom's taxonomy and do move from very basic cognitive levels such as knowing facts and definitions to understanding interrelationships among variables. Comprehension of facts and relationships is a prerequisite for making reasonable policy suggestions and judging the appropriateness of current policy actions.

In terms of attitudinal changes, the 1977–78 experiment, which pooled the data from the previous year, shows that the overall course rating is a significant explanatory variable. This point needs elaboration. In this experiment the students' ratings of the course constitute a measure of how well they felt the course met its objectives and how well the lectures and simulation meshed to meet these objectives. The higher students rated the course, the more their interest in the material increased over the term. This can be interpreted to mean that the simulation was successful in bridging the gap between practice and theory and thus that the material displays applicability.

Softer evidence comes from several sources. First, the student position papers at the end of the course have demonstrated an amazing grasp of the current economic situation and an ability on the part of most students to analyze it with some sophistication. Also, their policy suggestions are well thought out and justified, rather than being a display of emotional or political rhetoric. Students themselves admit that they learned a lot in the simulations and in writing the papers. Every year there is a waiting list to get into one of the two forty-student sections. Finally, the grapevine is very effective in any undergraduate institution. This well of information says that the course is a lot of work, but worth the effort.

Summary

The lecturing doldrums experienced over four years ago have given way to a well-structured course that attempts to demonstrate the applicability of economic theory to the current economic situation. The vehicle used to transport students through economic theory is the anticipation of, the excitement of, and the satisfaction generated by the FOMC simulation.

This simulation is unique in the sense that it is synergistic and is therefore more effective in attaining its goals. Other synergistic simulations can be designed to fit a variety of economics courses. The Council of Economic Advisers is an example of another synergistic simulation. It is designed with the same objectives and format as the FOMC simulation, except that the focus is on fiscal policy. Regardless of the focus, however, the synergistic approach to simulation in economics is a valuable complementary technique to the traditional lecture.

Hawaii Economics Project

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Purpose and Objectives

The purpose of this project was to help students understand our economic world better by providing them with some economic tools with which to analyze "real-world" problems. (The specific performance objectives are included with the full report.) The major objectives for the study were as follows:

- To introduce the students to the principles of economics
- To enable the students to use supply and demand analysis to evaluate economic issues
- To enable the students to describe the state of the economy and to suggest the use of fiscal and/or monetary policies to solve the problems
- To enable the students to understand the various market structures in the economy

Instructional Procedures

From the time that I was a teaching assistant to the time that I was an instructor, I was dissatisfied with the results of the course. I was not quite sure whether the students were learning what they were supposed to learn and if I was teaching what I was supposed to teach. I realized the two issues were related and began to ask myself some crucial questions: How do the students know what they are supposed to know if the instructor doesn't know? Even if the instructor knows what students should learn, how do students demonstrate they have gained that knowledge? What is the most efficient way of getting this knowledge across to the students so that they can retain the concepts and apply them outside the classroom?

They key that unlocked the answers was *Teaching by Performance Objectives*, eloquently expounded by Robert F. Mager. In the summer of 1975 I wrote the outline for the principles-of-economics course, setting down what the students were supposed to learn and what I was supposed to teach in terms of performance objectives. The results far exceeded my expectations. The syllabus, written in terms of performance objectives, has been crucial to the success of my introductory economics courses. It gives the students a detailed map of the road to economic knowledge and it gives me, the teacher, an essential guide for organizing my lectures and activities. The program is made up of four units:

UNIT ONE: THE BASIC ECONOMIC PROBLEM
Lesson 1. "There's No Such Thing As a Free Lunch"
Lesson 2. Scarcity, Wants, and Competition
Lesson 3. Productive Resources

UNIT TWO: TRYING TO SOLVE THE ECONOMIC PROBLEM
Lesson 4. Types of Economic Systems
Lesson 5. Specialization and Exchange
Lesson 6. Profits and Economic Incentives
Lesson 7. The Role of Government

UNIT THREE: THE MARKET SYSTEM
Lesson 8. Why Do Prices Change?
Lesson 9. Supply
Lesson 10. Demand
Lesson 11. Demand and Supply United

UNIT FOUR: THE MARKET SYSTEM—SOME CONSIDERATIONS
Lesson 12. Market Structure
Lesson 13. Efficiency vs. Equity
Lesson 14. "Market Failure"

"The Basic Economic Problem" is designed to last one or two weeks and give students an introduction to economics and economic thinking (analysis). In the process, they must become familiar with economic terminology such as scarcity, opportunity cost, productive resources, choice, competition, etc. It is hoped that they will discover and conceptualize the basic meaning of these ideas before formal definitions are given.

In Unit One several types of choices were discussed: What to produce? How to produce it? Who gets it? All economic systems must answer these questions because of scarcity. But different economic systems will answer these questions in different ways. The following activity from Unit One illustrates the kind of learning situations incorporated into the economics course:

LESSON 1—"THERE IS NO SUCH THING AS A FREE LUNCH"
(length of lesson: two–three days)

Objectives:

1. Given a group of "free goods," the students will be able to recognize the person(s) to whom the good is not free.
2. Students will be able to define cost as what they have to give up to do something.
3. Given a particular choice, students can determine the potential cost of the action.

Activities:

1. Pass out the story of the king and the frog to your students. While they

are reading the story, write the phrase "There is no such thing as a free lunch" on the board. When they finish reading, ask them the following questions:

   a. What does the statement mean to you?
   b. How does it relate to what you think economics is?
   c. What does "free" mean?
   d. What are some things that are free?

2. On the chalkboard, under the heading "Free" Good, list some of the items students say are free.

"Free" Good	Free to Whom?	Who Pays?
1. Free education	Students	Taxpayers
2. Album from a radio station	The fourth caller	The radio station
3. A gift	Whoever receives it	The giver
4.		
5.		

3. Under the heading Free to Whom? list who receives the free good.
4. For each free good, ask "Did someone else pay for it?" If so, list the payer under the heading Who Pays?
5. Ask the following: "Suppose you did not have to attend school. What would you be doing right now?" You should get a variety of answers—from working to sleeping to surfing. Explain that this is the cost of going to school, i.e., the thing you have to give up. You may do this by rephrasing the question to something like "By going to school, I am giving up the chance to ———."
6. Write the definition of cost on the board:
   Cost (or opportunity cost) is the highest valued forsaken alternative or the most important thing given up.
7. Have your students work on the exercise on costs.

Unit Two is designed to last two–three weeks and to give students an introduction to various types of economic systems. Also examined is the rather natural process of specialization and exchange. We also consider the role of profits and economic incentives and the effects of government intervention and regulations.

"The market system" unit is designed to last two or three weeks and to introduce students to the market system and the reasons for fluctuating prices. The major tool used is the model of demand and supply. To reach as many students as possible, teachers should use demand and supply graphs only if their students can handle graphic analysis. Emphasis is on verbal exposition of the concepts.

In Unit Three, we discuss how and why prices change, using the model of demand and supply. When using demand and supply analysis, we make several implicit assumptions. In Unit Four, those assumptions are made explicit and we consider the effects when a market does not conform to the model.

For students to obtain basic economic knowledge, they must study demand and supply; but they must also consider the concepts covered in this unit. They need to look at the total picture, which includes equity as well as efficiency, market structure, information costs, and externalities.

Because of the size of the classes (150 to 250 students), the primary medium of instruction was lecture (or "Spray and Pray," as Mager sacrilegiously calls it). The format of the lecture was Review, Introduction, Lecture, and Summary, with strong emphasis on eliciting the principles of economics from the students.

There are also weekly labs, which, because of their smaller sizes, allow more student-teacher contact. These labs are conducted by teaching assistants who help clarify difficult concepts discussed in class, lead the students in activities and problem solving, and give biweekly exams. The exams are corrected in class by the students to help them learn and retain their newly gained knowledge.

The class is concluded with comprehensive final examination and an evaluation of the class by the students. The final examination helps the students summarize their semester of learning while the evaluation gives the teacher some explicit direction from the students on how to improve the course.

Teaching Materials and Learning Activities

Because of the volume of materials and learning activities used during the project, it is almost impossible to make individual comments about each resource and assignment. Many materials listed were made available to individuals, some to small groups, and others were for the entire class.

The assignments included:

1. Reading assignments in:
   a. *Economics*, by Lipsey and Steiner.
   b. *Primero Dinero*, by Jackstadt et al.
   c. *Superheroes*, by Jackstadt et al.
2. Articles handed out in class, including:
   a. *The Valley of Darkness*, by Schlesinger
   b. "The National Debt," from *Contemporary Economic Problems and Issues*, by Hailstones et al.
   c. *When Inflation Runs Wild: The Case of Brazil*, by Stewart
   d. *We Can Live with Inflation*, by Robock
   e. "Doonesbury" cartoons
3. Analysis of newspaper articles about current economic issues was used

to give the students practice in applying economic principles to real-world problems. In analyzing the articles, the students were required to:
   a. State the economic issue
   b. State the suggested solution, if any
   c. Explain why they agree or disagree with the suggested solution
   d. Suggest alternative solutions

4. Biweekly exams were used to help give the students and the teacher frequent evidence of our mutual progress and to give the students opportunities to apply their new arsenal of economic tools.

5. Textbooks:
   a. *The Adventures of Primero Dinero*. S. Jackstadt, et al. (Follet, 1973).
   b. *Economics*. Lipsey and Steiner (Harper and Row, 1977).
   c. "Hawaii Economics Project." Burns, Jackstadt, and Lee (Hawaii Joint Council on Economic Education, 1977).
   d. "Superheroes of Macroeconomics." S. Jackstadt, et al. (Follet, 1976).

6. Books on Performance Objectives:
   a. *Developing Attitudes Toward Learning*. R. Mager (Fearon, 1968).
   b. *Measuring Instructional Intent*. R. Mager (Fearon, 1973).
   c. *Preparing Instructional Objectives*. R. Mager (Fearon, 1962).

In addition to the above references, materials used included a set of slides made specifically to illustrate the performance objectives of the course, organize the lectures better, give a more legible presentation of definitions and graphs, and make more efficient use of class time. A complete list of the slides is included in the full report.

Evaluation

As stated in the syllabus for Economics 120, a student must average 95 percent on the exams to earn an A, 85 percent to earn a B, and so on. The same criteria were used for Economics 150 (Introductory Macroeconomics).

In the Economics 120 class, 109 students (51.2 percent) earned A's while 152 students (71.4 percent) earned B's or better. In the Economics 150 class, 91 students (64.5 percent) earned A's while 119 students (84.4 percent) earned B's or better. These results far exceeded our expectations since fewer than 30 percent of the students in my classes had earned A's on similar tests before I adopted the performance objectives approach.

In response to the question, "Compared with other instructors that you've had at the University of Hawaii, how would you rate this instructor?" the students gave me an average rating of 4.59 on a 5.00 scale, with a high of 4.75 in Economics 150 for the fall semester of 1977. This compares with an overall average of 3.80 for all other undergraduate economic courses, including upper-division courses which have fewer students.

I am very grateful for the kind responses of the students, because much of the praise for the success of the classes goes to them as a result of their hard work. I should also mention that the effort of my teaching assistants, Mary Blewitt, Dennis Foster, Helen Gau, and Peter Lai, was absolutely essential to the success of the classes, because they were able to work closely with the students to help clarify many of the difficult concepts discussed in class.

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